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Nokia N90 User Guide

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This device may contain commodities, technology or software subject to export laws and regulations from the US and other countries. Diversion contrary to law is prohibited.

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Your device may cause TV or radio interference (for example, when using a telephone in close proximity to receiving equipment). The FCC or Industry Canada can require you to stop using your telephone if such interference cannot be eliminated. If you require assistance, contact your local service facility. This device complies with part 15 of the FCC rules. Operation is subject to the condition that this device does not cause harmful interference.

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NOTES

For your safety

Read these simple guidelines. Not following them may be dangerous or illegal. Read the complete user guide for further information.

SWITCH ON SAFELY Do not switch the phone on when wireless phone use is prohibited or when it may cause interference or danger.

ROAD SAFETY COMES FIRST Obey all local laws. Always keep your hands free to operate the vehicle while driving. Your first consideration while driving should be road safety.

INTERFERENCE All wireless phones may be susceptible to interference, which could affect performance.

SWITCH OFF IN HOSPITALS Follow any restrictions. Switch the phone off near medical equipment.

SWITCH OFF IN AIRCRAFT Follow any restrictions. Wireless devices can cause interference in aircraft.

SWITCH OFF WHEN REFUELING Do not use the phone at a refueling point. Do not use near fuel or chemicals.

SWITCH OFF NEAR BLASTING Follow any restrictions. Do not use the phone where blasting is in progress.

USE SENSIBLY Use only in the normal position as explained in the product documentation. Do not touch the antenna unnecessarily.

QUALIFIED SERVICE Only qualified personnel may install or repair this product.

ENHANCEMENTS AND BATTERIES Use only approved enhancements and batteries. Do not connect incompatible products.

WATER-RESISTANCE Your phone is not water-resistant. Keep it dry.

BACK-UP COPIES Remember to make back-up copies or keep a written record of all important information stored in your phone.

CONNECTING TO OTHER DEVICES When connecting to any other device, read its user guide for detailed safety instructions. Do not connect incompatible products.

EMERGENCY CALLS Ensure the phone is switched on and in service. The keypad is active only in the Fold open mode. Press the end key as many times as needed to clear the display and return to the start screen. Enter the emergency number, then press the call key. Give your location. Do not end the call until given permission to do so.

About your device

The wireless device described in this guide is approved for use on the EGSM 900/1800/1900 and UMTS 2100 networks. Contact your service provider for more information about networks.

When using the features in this device, obey all laws and respect privacy and legitimate rights of others.

When taking and using images or video clips, obey all laws and respect local customs as well as privacy and legitimate rights of others.

Warning: To use any features in this device, other than the alarm clock, the device must be switched on. Do not switch the device on when wireless device use may cause interference or danger.

Network Services

To use the phone you must have service from a wireless service provider. Many of the features in this device depend on features in the wireless network to function. These network services may not be available on all networks or you may have to make specific arrangements with your service provider before you can utilize network services. Your service provider may need to give you additional instructions for their use and explain what charges will apply. Some networks may have limitations that affect how you can use network services. For instance, some networks may not support all language-dependent characters and services.

Your service provider may have requested that certain features be disabled or not activated in your device. If so, they will not appear on your device menu. Your device may also have been specially configured. This configuration may include changes in menu names, menu order, and icons. Contact your service provider for more information.

This device supports WAP 2.0 protocols (HTTP and SSL) that run on TCP/IP protocols. Some features of this device, such as MMS, browsing, e-mail and content downloading via browser or over MMS, require network support for these technologies.

For availability and information on using SIM card services, contact your SIM card vendor. This may be the service provider, network operator, or other vendor.

Enhancements, batteries, and chargers

Always switch the device off, and disconnect the charger before removing the battery.

Check the model number of any charger before use with this device. This device is intended for use when supplied with power from the DC-4, AC-3 and AC-4 charger, and from the AC-1, ACP-7, ACP-8, ACP-9, ACP-12, LCH-8, LCH-9, or LCH-12 charger when used with the charger adapter CA-44 delivered with your phone.

The battery intended for use with this device is BL-5B.

Warning: Use only batteries, chargers, and enhancements approved by Nokia for use with this particular model. The use of any other types may invalidate any approval or warranty and may be dangerous.

For availability of approved enhancements, please check with your dealer. When you disconnect the power cord of any enhancement, grasp and pull the plug, not the cord.

Welcome

Congratulations on your purchase of the Nokia N90 mobile device. Your device provides many functions that are practical for daily use, such as a calendar, a clock, an alarm clock, and messaging.

You can personalize your device with ringing tones and themes. See "Personalize your device," p. 26.

Other features on your device are:

- Multimedia messaging. See "Messaging," p. 55.
- Instant messages. See "IM—Instant messaging (chat)," p. 86.
- RealPlayer™. See "RealPlayer™," p. 49.
- Bluetooth technology. See "Connectivity," p. 78.
- J2ME™ (Java 2 Platform, Micro Edition). See "Application manager," p. 101.
- Web browser. See "Web," p. 70.

Accessibility solutions

Nokia is committed to making mobile devices easy to use for all individuals, including those with disabilities. For more information, visit www.nokiaaccessibility.com.

Register your phone

Make sure to register your phone at www.warranty.nokiausa.com or 1-888-NOKIA-2U (1-888-665-4228) so that we can serve your needs better if you should need to call the center or have your device repaired.

Copyright protection

Copyright protections may prevent some images, music (including ringing tones) and other content from being copied, modified, transferred, or forwarded.

Updates

From time to time, Nokia may update this guide to reflect changes. The latest version may be available at www.nokiausa.com. Also, an interactive tutorial may be available at www.nokiausa.com.

Find information about your device

Information about your device is provided on the device label, which is on the back of the device under the battery. The label contains the model and serial numbers, as well as the following:

- Device type (such as RM-58)
- Device model (such as Nokia 6682 device)
- International mobile equipment identity (IMEI)
- FCC ID number

Contact your service provider

In many cases, the service provider will make available descriptions of its services and instructions for using features, such as the following:

- Voice mail and voice privacy
- Call waiting, call forwarding, and caller ID
- Messaging
- News and information services
- Selected Internet services

Service providers may differ in their support of features. Before you sign up with a service provider, make sure that the service provider supports the features that you need.

Nokia support and contact information

Check www.nokia.com/support or your local Nokia Web site for the latest version of this guide, additional information, downloads, and services related to your Nokia product.

On the Web site, you can get information on the use of Nokia products and services. If you need to contact customer service, check the list of local Nokia Care contact centers at www.nokia.com/customerservice.

For maintenance services, check your nearest Nokia Care services location at www.nokia.com/repair.

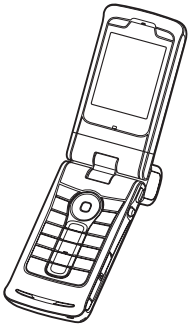
Your Nokia N90

Model number: Nokia N90-1

Hereinafter referred to as Nokia N90.

Modes

Your device has four mechanical modes that support different use situations: **Fold closed**, **Fold open** for using the device, **Imaging** for recording video and taking pictures, and **Camera** for taking pictures. To switch between the modes, turn the fold and the swing axis camera. There is a short time-out before a mode is activated.

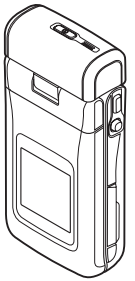


Fold open mode

When you open the fold, the Fold open mode is activated automatically: the main display lights up, the keypad is available, and you can access the menu. You can scroll in the menu with the scroll key or the joystick.

The Fold open mode is activated even if the fold is not fully opened. The fold opens close to 150 degrees, as shown in the picture. Do not force the fold to open more.

Fold closed mode



When the fold is closed, the main display is deactivated and the cover display lights up. Ongoing calls are ended, unless the loudspeaker is in use or a headset is connected. If you are using the player to listen to a sound clip, it continues to play.

In the Fold closed mode, the cover display provides limited functions. On the standby mode display, the signal strength and battery indicators, operator logo, time information, status indicators, and the name of the currently active profile (if other than **Normal**) may be shown. If you are listening to a sound clip, volume bars and track information are displayed.

If the keypad is not locked, you can use the power key, the joystick, and the capture key (for enhanced voice commands). To select commands on the display, such as **Show** and **Back**, move the joystick to highlight the desired text, and press the joystick.

Calendar and clock alarms and notes for missed calls and new received messages are also displayed. You can view received text messages and the text and image objects of received multimedia messages on the cover display. To view

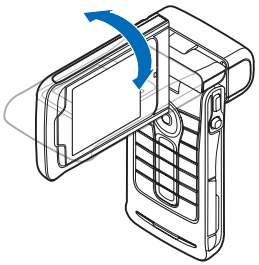
other types of messages, open the fold, and view the message on the main display.

Incoming calls are indicated by their normal tone and a note. To answer a call and use the handset, open the fold. To answer a call and use the loudspeaker, select **Answer**. If a headset is connected to the device, press the answer key on the headset.

To make calls or use the menu, open the fold.

Imaging mode

In the Imaging mode, you can record videos, take pictures, edit video clips and images, and send live video during a video call. See "Camera and Gallery," p. 33 and "Video calls," p. 18.



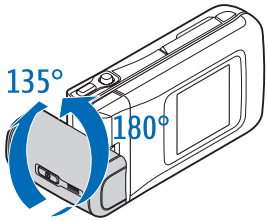
To activate the Imaging mode, open the fold up to 90 degrees, hold the device sideways, and turn the fold up so that the main display faces you. The camera starts, and you can see the view to be captured. You can also turn the swing axis camera. In the Imaging mode, the camera unit turns 180 degrees counterclockwise and close to 135 degrees clockwise. Do not force the camera unit to turn more.

In the Imaging mode, the keypad is not active. You can use the capture key, joystick, power key, the upper and lower selection keys next to the main display, and to end an active call.

Warning: You cannot make emergency calls in the Imaging mode, because the keypad is not active. To make an emergency call, activate the Fold open mode.

Camera mode

In the Camera mode, you can take pictures quickly. You can use the camera during an active call. See "Camera and Gallery," p. 33.



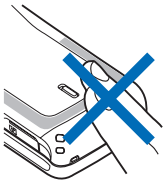
To activate the Camera mode, turn the swing axis camera when the fold is closed. The viewfinder appears on the cover display. The camera unit turns 180 degrees counterclockwise and close to 135 degrees clockwise. Do not force the camera unit to turn more.

You can use the capture key, joystick, and power key in the Camera mode.

Antenna

Your device has an internal antenna.

Note: As with any other radio transmitting device, do not touch the antenna unnecessarily when the device is switched on. Contact with the antenna affects call quality and may cause the device to operate at a higher power level than otherwise needed. Avoiding contact with the antenna area when operating the device optimizes the antenna performance and the battery life.



Essential indicators

The phone is being used in a GSM network.

3G (network service)—The phone is being used in a UMTS network. See "Network," p. 100.

You have received one or several messages to the **Inbox** folder in **Messaging**.

There are messages waiting to be sent in the **Outbox** folder. See "Outbox—messages waiting to be sent," p. 64.

You have missed calls. See "Recent calls," p. 24.

Shown if **Ringing type** is set to **Silent** and **Message alert tone**, **IM alert tone**, and **E-mail alert tone** are set to **Off**. See "Profiles—Set tones," p. 27.

The phone keypad is locked. See 'Keypad lock (Keyguard)' in the Quick start guide.

You have an active clock alarm. See "Clock," p. 10.

2 The second phone line is being used. See "Call settings," p. 93.

All calls to the phone are diverted to another number. If you have two phone lines, the divert indicator for the first line is 1 and for the second 2.

A headset is connected to the phone.

A loopset is connected to the phone.

The connection to a headset with Bluetooth has been lost.

D A data call is active.

A GPRS or EDGE packet data connection is available.

A GPRS or EDGE packet data connection is active.

A GPRS or EDGE packet data connection is on hold. These icons are shown instead of the signal strength indicator (shown in the top left corner in the standby mode). See "Packet data connections in GSM and UMTS networks," p. 94.

A UMTS packet data connection is available.

A UMTS packet data connection is active.

A UMTS packet data connection is on hold.

Bluetooth connectivity is **On**.

Data is being transmitted using a Bluetooth connection. See "Bluetooth connection," p. 78.

A USB connection is active.

You have an e-mail that has been read, waiting for you to retrieve to your phone.

You have an e-mail that has not been read, waiting for you to retrieve to your phone.

Attach the wrist strap

Thread the strap as shown in the picture, and tighten it.

Configure settings

To use multimedia messaging, GPRS, Internet, and other wireless services, you must have the proper configuration settings on your phone.

You may have settings from your service providers already installed in your phone, or you may receive the settings from the service providers as a special text message.

See "Data and settings," p. 61. For more information on the availability of the settings, contact your network operator, service provider, nearest authorized Nokia dealer, or visit the support area on the Nokia website, www.nokia.com/support.

Nokia support on the Web

Check www.nokia.com/support or your local Nokia Web site for the latest version of this guide, additional information, downloads, and services related to your Nokia product.

Help

Your device has context-sensitive help. You can access the help from an application or from the main menu.

When an application is open, to access help for the current view, select **Options** > **Help**.

Example: To view instructions on how to create a contact card, start to create a contact card, and select **Options** > **Help**.

When you are reading the instructions, to switch between help and the application that is open in the background, press and hold .

To open help from the main menu, select **Tools** > **Help**. Select the desired application to view a list of help topics. To search for help topics using keywords, select **Options** > **Search by keyword**.

When you are reading a help topic, to view other related topics, press ◯ or ◯.

Clock

Press , and select **Clock**.

To set a new alarm, select **Options** > **Set alarm**. Enter the alarm time, and select **OK**. When the alarm is active, the indicator is shown.

To turn off the alarm, select **Stop**. When the alarm tone sounds, press any key, or select **Snooze** to stop the alarm for five minutes, after which it resumes. You can do this a maximum of five times.

If the alarm time is reached while the device is switched off, the device switches itself on and starts sounding the alarm tone. If you select **Stop**, the device asks whether you want to activate the device for calls. Select **No** to switch off the device or **Yes** to make and receive calls. Do not select **Yes** when wireless phone use may cause interference or danger.

To cancel an alarm, select **Clock** > **Options** > **Remove alarm**.

Clock settings

To change the clock settings, select **Options** > **Settings** in the clock. To change the time or date, select **Time** or **Date**.

To change the clock shown in the standby mode, scroll down, and select **Clock type** > **Analog** or **Digital**.

To allow the mobile phone network to update the time, date, and time zone information to your phone , scroll down, and select **Auto time update**. For the **Auto time update** setting to take effect, the phone restarts.

To change the alarm tone, scroll down, and select **Clock alarm tone**.

To change the daylight-saving time status, scroll down, and select **Daylight-saving**. Select **On** to add one hour to the **My current city** time. See "World clock," p. 10. When the daylight-saving is active, the indicator is shown in the clock main view. This setting is not shown if **Auto time update** is on.

World clock

Open **Clock**, and press ◯ to open the world clock view. In the world clock view, you can view the time in different cities.

To add cities to the list, select **Options** > **Add city**. Enter the first letters of the city name. The search field appears automatically, and the matching cities are displayed. Select a city. You can add a maximum of 15 cities to the list.

To set your current city, scroll to a city, and select **Options** > **My current city**. The city is displayed in the clock main view, and the time in your phone is changed according to the city selected. Check that the time is correct and matches your time zone.

Volume and loudspeaker control

To increase or decrease the volume level, when you have an active call or are listening to a sound, press ◔ or ◔, respectively, or move the joystick right or left.

The built-in loudspeaker allows you to speak and listen to the phone from a short distance without having to hold the phone to your ear, for example, having it on a table nearby. Sound applications use the loudspeaker by default.

Warning: Do not hold the device near your ear when the loudspeaker is in use, because the volume may be extremely loud.

To locate the loudspeaker, see 'Keys and parts' in the Quick start guide.

To use the loudspeaker during a call, start a call, and select **Options** > **Activate loudsp.**.

To turn off the loudspeaker when you have an active call or are listening to a sound, select **Options** > **Activate handset**.

File manager

Many features of the phone use memory to store data. These features include contacts, messages, images, ringing tones, calendar and to-do notes, documents, and downloaded applications. The free memory available depends on how much data is already saved in the phone memory. You can use a memory card as extra storage space. Memory cards are rewritable, so you can delete and save data on a memory card.

To browse files and folders in the phone memory or on a memory card (if inserted), press ◔, and select **Tools** > **File mgr.**. The phone memory view (▣) opens. Press ◔ to open the memory card view (▣).

To move or copy files to a folder, press ✎ and ◉ at the same time to mark a file, and select **Options** > **Move to folder** or **Copy to folder**.

Icons in **File mgr.**:

Folder

Folder that has a subfolder

To find a file, select **Options** > **Find** and the memory from which to search, and enter a search text that matches the file name.

Tip! You can use Nokia Phone Browser available in Nokia PC Suite to view the different memories in your phone. See the CD-ROM if supplied.

View memory consumption

To view what types of data you have in the phone and how much memory the different data types consume, select **Options** > **Memory details**. Scroll down to **Free memory** to view the amount of free memory in the phone.

To view the amount of free memory on the memory card, if you have a card inserted in the phone, press ◔ to open the memory card view, and select **Options** > **Memory details**.

Memory low—free memory

The phone notifies you if the phone memory or memory card memory is getting low. If the phone memory starts to get low when your browser is open, then the browser is closed automatically to free some memory space.

To free phone memory, transfer data to a memory card in the file manager. Mark files to be moved, select **Move to folder** > **Memory card**, and a folder.

Tip! To free memory from the phone or from the memory card, use Image Store available in Nokia PC Suite to transfer images and video clips to a compatible PC. See the CD-ROM if supplied.

To remove data to free memory, use **File mgr.**, or go to the respective application. For example, you can remove the following:

- Messages from **Inbox**, **Drafts**, and **Sent** folders in **Messaging**
- Retrieved e-mail messages from the phone memory
- Saved Web pages
- Saved images, videos, or sound files
- Contact information
- Calendar notes
- Downloaded applications. See also "Application manager," p. 101.
- Any other data that you no longer need

Memory card tool

Note: This device uses a Reduced Size Dual Voltage (1.8/3V) MultiMediaCard (RS-MMC). To ensure interoperability, use only dual voltage RS-MMCs. Check the compatibility of an RS-MMC with its manufacturer or provider.

Use only compatible Reduced-Size Multimedia cards (RS-MMC) with this device. Other memory cards, such as Secure Digital (SD) cards, do not fit in the memory card slot and are not compatible with this device. Using an incompatible memory card may damage the memory card as well as the device, and data stored on the incompatible card may be corrupted.

Keep all memory cards out of the reach of small children.

Press , and select **Tools** > **Memory**. You can use a memory card as extra storage space. It is also good to regularly back up the information in the phone memory to the memory card. The information can be restored to the phone later. See 'Inserting the memory card' in the Quick start guide.

You cannot use the memory card if the door of the memory card slot is open.

Important: Do not remove the memory card in the middle of an operation when the card is being accessed. Removing the card in the middle of an operation may damage the memory card as well as the device, and data stored on the card may be corrupted.

To back up information from phone memory to a memory card, select **Options** > **Backup phone mem.**

To restore information from the memory card to the phone memory, select **Options** > **Restore from card**.

Tip! To rename a memory card, select **Options** > **Memory card name**.

Format a memory card

When a memory card is reformatted, all data on the card is permanently lost.

Some memory cards are supplied preformatted and others require formatting. Consult your retailer to find out if you must format the memory card before you can use it.

To format a memory card, select **Options** > **Format mem. card**. Select **Yes** to confirm. When formatting is complete, enter a name for the memory card, and select **OK**.

Useful shortcuts

Use shortcuts to quickly get the most from your device. Refer to the relevant sections in this user guide for further details of the functions.

Shortcuts when taking pictures

- To zoom in and out, press the joystick up and down.
- To enter the **Image setup** settings, press the joystick.
- To change the flash mode, press the joystick left or right.
- After you have taken a picture, to take a new picture, press the capture key halfway down.
- If you have activated an application in the Imaging mode, press the capture key to return to the camera.

Shortcuts when recording videos

- To zoom in or zoom out, press the joystick up or down.
- To enter the **Video setup** settings, press the joystick.
- f you have activated an application in the Imaging mode, press the capture key to return to the camera.

Edit text and lists

- To mark an item in a list, scroll to it, and press and at the same time.
- To mark multiple items in a list, press and hold , while you press or . To end the selection, release , then release .
- To copy and paste text: Press and hold . At the same time, press or to select letters and words, or or to select rows of text. As the selection moves, text is highlighted. To copy the text to clipboard, while still holding , press **Copy**. To insert the text into a document, press and hold and press **Paste**.

Standby mode

- To switch between applications that are open, press and hold . If memory is low, the phone may close some applications. The phone saves any unsaved data before closing an application.
- To change the profile, press , and select a profile.
- Press and hold # to switch between **Normal** and **Silent** profiles. If you have two phone lines then this action will switch between the two lines.
- To open the last dialled numbers list, press .
- To use voice commands, press and hold the capture key. See "Voice commands," p. 101.
- To start a connection to **Web**, press and hold 0. See "Web," p. 70.

For further shortcuts available in the standby mode, see "Active standby mode," p. 29.

Keypad lock (keyguard)

- To lock: In the standby mode, press , then * .
- To unlock: Press , then * .
- To lock the keypad in the Fold closed mode, press and select **Lock keys**.
- To turn on the display light when the keypad lock is on, press .

When the keypad lock is on, calls may be possible to the official emergency number programmed into your device. Enter the emergency number, and press .

Make calls

Voice calls

Tip! To increase or decrease the volume during a call, press ◔ or ◔. If you have set the volume to **Mute**, you cannot adjust the volume with the scroll key. To adjust the volume, select **Unmute**, and then press ◔ or ◔.

1 In the standby mode, enter the phone number, including the area code. Press C to remove a number.

For international calls, press * twice for the + character (replaces the international access code), and enter the country code, area code (omit the leading zero if necessary), and phone number.

2 Press ⌐ to call the number.

3 Press ⌙ to end the call (or to cancel the call attempt).

Pressing ⌙ always ends a call, even if another application is active.

Activating the Fold closed mode during an active call ends the call unless you have activated the loudspeaker or a headset.

To make a call from **Contacts**, press ⌂, and select **Contacts**. Scroll to the desired name, or enter the first letters of the name to the search field. Matching contacts are listed.

To call, press ⌐ or select **Options** > **Call** > **Voice call**. If there is more than one number listed for the contact, scroll to the number you want to call and select **Call**.

You must copy the contacts from your SIM to **Contacts** before you can make a call this way. See "Copy contacts," p. 31.

To call your voice mailbox (T), press and hold 1 in the standby mode. See also "Call forwarding," p. 99.

Tip! To change the phone number of your voice mailbox, press ⌂, and select **Tools** > **Voice mail** > **Options** > **Change number**. Enter the number (obtained from your service provider), and select **OK**.

To call a recently dialed number in the standby mode, press ⌐ to access a list of the 20 last numbers you called or attempted to call. Scroll to the number you want, and press ⌐ to call the number.

Make a conference call

1 Make a call to the first participant.

2 To make a call to another participant, select **Options** > **New call**. The first call is automatically put on hold.

3 When the new call is answered, to join the first participant in the conference call, select **Options** > **Conference**.

To add a new person to the call, repeat step 2, and select **Options** > **Conference** > **Add to conference**. Your device supports conference calls between a maximum of six participants, including yourself.

To have a private conversation with one of the participants, select **Options** > **Conference** > **Private**. Select a participant, and select **Private**. The conference call is put on hold on your device. The other participants can still continue the conference call. Once you have finished the private conversation, select **Options** > **Add to conference** to return to the conference call.

To drop a participant, select **Options** > **Conference**> **Drop participant**, scroll to the participant, and select **Drop**.

4 To end the active conference call, press .

Speed dial a phone number

To activate speed dialing, press , and select **Tools**> **Settings** > **Call** > **1-touch dialing** > **On**.

To assign a phone number to one of the speed dialing keys (**2** – **9**), press , and select **Tools** > **1-touch**. Scroll to the key to which you want to assign the phone number, and select **Options** > **Assign**. **1** is reserved for the voice mailbox.

To call in the standby mode, press the speed dial key and .

Voice dialing

Your device supports enhanced voice commands. Enhanced voice commands are not dependent on the speaker's voice, so the user does not record voice tags in advance. Instead, the device creates a voice tag for the entries in contacts, and compares the spoken voice tag to it. The voice recognition in the device adapts to the main user's voice to recognize the voice commands better.

The voice tag for a contact is the name or nickname that is saved on the contact card. To listen to the synthesized voice tag, open a contact card, and select **Options** > **Play voice tag**.

Make a call with a voice tag

Note: Using voice tags may be difficult in a noisy environment or during an emergency, so you should not rely solely upon voice dialing in all circumstances.

When you use voice dialing, the loudspeaker is in use. Hold the device at a short distance away when you say the voice tag.

1 To start voice dialing, press and hold the capture key. If you are using a compatible headset with the headset key, press and hold the headset key to start voice dialing.

2 A short tone is played, and **Speak now** is displayed. Say clearly the name or nickname that is saved on the contact card.

3 The device plays a synthesized voice tag for the recognized contact in the selected device language, and displays the name and number. After a timeout of 1.5 seconds, the device dials the number.

If the recognized contact was not correct, select **Next** to view a list of other matches, or **Quit** to cancel voice dialing.

If several numbers are saved under the name, the device selects the default number, if it has been set. Otherwise the device selects the first available number of the following: **Mobile**, **Mobile (home)**, **Mobile (work)**, **Telephone**, **Tel. (home)**, and **Tel. (work)**.

Video calls

When you make a video call, you can see a real-time, two-way video between you and the recipient of the call. The live video image, or the selected still image captured by the camera in your device is shown to the video call recipient.

To be able to make a video call, you must have a USIM card and be in the coverage of a UMTS network. For availability of and subscription to video call services, contact your network operator or service provider. A video call can only be made between two parties. The video call can be made to a compatible mobile phone or an ISDN client. Video calls cannot be made while there is another voice, video, or data call active.

Warning! You cannot make emergency calls in the Imaging mode because the keypad is not active. To make an emergency call, activate the Fold open mode.

Icons:

You are not receiving video (the recipient is not sending video or the network is not transmitting it).

You have denied video sending from your device. To send a still image instead, see "Call settings," p. 93.

1 To start a video call, in the Fold open mode, enter the phone number in the standby mode, or select **Contacts**, and select a contact.

2 Select **Options** > **Call** > **Video call**.

3 Activate the Imaging mode after the call recipient has answered the call.

Starting a video call may take a while. **Waiting for image** is shown. If the call is not successful (for example, video calls are not supported by the network, or the receiving device is not compatible) you are asked if you want to try a normal call or send a message instead.

The video call is active when you see two video images, and hear the sound through the loudspeaker. The call recipient may deny video sending ( ), in which case you hear the sound and may see a still image or a grey background graphic.

Tip! To increase or decrease the volume during a call, in the Fold open mode, press or , or in the Imaging mode, move the joystick left or right.

To change between showing video or hearing only sound, select **Enable**/**Disable** > **Sending video** (Imaging mode only), **Sending audio** or **Sending audio & video** (Imaging mode only).

To send live video image of yourself, turn the camera unit so that the lens is facing you.

To zoom your own image, move the joystick up and down to zoom in and zoom out. The zoom indicator is shown on the top of the display.

To switch the places of the sent video images on the display, select **Change image order**.

If you activate the Fold open mode during a video call, sending your own video image stops because the camera is not active. You can, however, still see the video of the recipient.

Note: Even if you have denied video sending during a video call, the call will still be charged as a video call. Check the pricing with your network operator or service provider.

To end the video call, press .

Video sharing

Use **Video sharing** to send live video or a video clip from your mobile device to another compatible mobile device during a voice call. Simply invite a recipient to view the live video, or a video clip you want to share. Sharing begins automatically when the recipient accepts the invitation, and you activate the correct mode. See "Share video," p. 20.

Video sharing requirements

Because **Video sharing** requires a 3G Universal Mobile Telecommunications System (UMTS) connection, your ability to use **Video sharing** depends on 3G network availability. Contact your service provider for questions about network availability and fees associated with using this application. To use **Video sharing** you must:

- Ensure that **Video sharing** is installed on your Nokia N90.
- Ensure that your device is set up for person-to-person connections. See "Settings," p. 20.

- Ensure you have an active UMTS connection and are within UMTS network coverage. See "Settings," p. 20. If you start the sharing session while you are within UMTS network coverage and a hand over to GSM occurs, the sharing session is discontinued, but your voice call continues.
- Ensure that both the sender and recipient are registered to the UTMS network. If you invite someone to a sharing session and that person has his phone turned off, is not within UMTS network coverage, or does not have video sharing installed or person-to-person connections set up, they do not know that you are sending an invitation. However, you receive an error message that the recipient cannot accept the invitation.

Settings

Person-to-person connection settings

A person-to-person connection is also known as a Session Initiation Protocol (SIP) connection. The SIP profile settings must be configured in your device before you can use **Video sharing**. Setting up a SIP profile allows you to establish a live person-to-person connection to another compatible phone. The SIP profile must also be established to receive a sharing session.

Ask your network operator or service provider for the SIP profile settings, and save them in your device. Your network operator or service provider may send you the settings over the air.

If you know a recipient's SIP address, you can enter it on your contact card for that person. Open **Contacts** from your device main menu, and open the contact card (or start a new card for that person). Select **Options** > **Add detail** > **Web address**. Enter the SIP address in a format sip:username@domainname (you can use an IP address instead of a domain name).

UTMS connection settings

To set up your UMTS connection, do the following:

- Contact your service provider to establish an agreement for you to use the UMTS network.
- Ensure that your device UMTS access point connection settings are configured properly. For help, see "Connection settings," p. 94.

Share video

To receive a sharing session, the recipient must install **Video sharing** and configure the required settings on their mobile device. You and the recipient must both be registered to the service before you can start sharing.

To receive share invitations, you must be registered to the service, have an active UMTS connection, and be within the UMTS network coverage.

Live video

1 When a voice call is active, select **Options** > **Share video** > **Live**.

2 The phone sends the invitation to the SIP address you have added to the contact card of the recipient.

If the recipient has several SIP addresses in the contact card, select the SIP address to which you want to send the invitation, and **Select** to send the invitation.

If the SIP address of the recipient is not available, enter a SIP address. Select **OK** to send the invitation.

3 Sharing begins automatically when the recipient accepts the invitation, and you activate the Imaging mode. See "Imaging mode," p. 7.

When you activate the Imaging mode, the loudspeaker is active. You can also use a headset to continue your voice call while you share live video.

4 Select **Pause** to pause the sharing session. Select **Continue** to resume sharing.

5 To end the sharing session, in the Imaging mode, return to the Fold open mode. To end the voice call, press the End key.

Video clip

1 When a voice call is active, select **Options** > **Share video** > **Clip**.

A list of video clips opens.

2 Select a video clip you want to share. A preview view opens. To preview the clip, select **Options** > **Play**.

3 Select **Options** > **Invite**.

You may need to convert the video clip into a suitable format to be able to share it. **Clip must be converted for sharing. Continue?** appears. Select **OK**.

The phone sends the invitation to the SIP address you have added to the contact card of the recipient.

In case the recipient has several SIP addresses in the contact card, select the SIP address to which you want to send the invitation, and **Select** to send the invitation.

If the SIP address of the recipient is not available, enter a SIP address. Select **OK** to send the invitation.

4 Sharing begins automatically in the Fold open mode when the recipient accepts the invitation. See "Fold open mode," p. 6.

5 Select **Pause** to pause the sharing session. Select **Options** > **Continue** to resume sharing.

6 To end the sharing session, select **Stop**. To end the voice call, press the End key.

Accept an invitation

When someone sends you a share invitation, an invitation message is displayed showing the sender's name or SIP address. If your device is not set to **Silent**, it rings when you receive an invitation.

If someone sends you a share invitation and you are not within UMTS network coverage, you will not know that you received an invitation.

When you receive an invitation, you can select:

- **Accept** to begin the sharing session. If the sender wants to share live video, activate the Imaging mode.
- **Reject** to decline the invitation. The sender receives a message that you declined the invitation. You can also press the End key to decline the sharing session and disconnect the voice call.

To disconnect the session, when sharing a live video, return to the Fold open mode. If you share a video clip, select **Exit**. **Sharing ended** is displayed.

Answer or decline a call

To answer the call in the Fold open mode, press ⌙. If **Anykey answer** is set to **On**, to answer a call in the Fold closed mode, open the fold, and the call starts automatically. Otherwise, open the fold, and press ⌙. To answer a call, and use the loudspeaker in the Fold closed mode, select **Answer** ( ).

To mute the ringing tone when a call comes in, select **Silence**.

Tip! If a compatible headset is connected to the device, to answer and end a call, press the headset key.

If you do not want to answer a call, in the Fold open mode, press ⌙ to decline it. In the Fold closed mode, select **Declin.**. The caller hears a line busy tone. If you have activated the **Call forward settings** > **If busy** function to forward calls, declining an incoming call also forwards the call. See "Call forwarding," p. 99.

When you decline an incoming call in the Fold open mode, you can also send a text message to the caller informing why you cannot answer the call. Select **Options** > **Send text message**. You can edit the text before sending it. To set up this option and write a standard text message, see "Call settings," p. 93.

If you answer a voice call during a video call, the video call is dropped. **Call waiting** is not available during a video call.

Answer or decline a video call

When a video call arrives, is displayed.

Tip! You can assign a ringing tone for video calls. Press and select **Tools** > **Profiles**, select a profile and **Options** > **Customize** > **Video call tone**.

In the Fold open mode, press ⌙ to answer the video call.

To start sending video, activate the Imaging mode, and a live video image, recorded video clip, or the image being captured by the camera in your device is shown to the caller. If you want to send a live video image, turn the camera unit to the direction from which you want to send the video image. If you do not activate the Imaging mode, video sending is not possible, but you can still hear the other person. A grey screen is shown in place of the video.

To replace the grey screen with a still image, see "Call settings", **Image in video call**, p. 93.

Tip! To send video of yourself, in the Imaging mode turn the camera unit so that the lens is facing you.

If you activate the Fold open mode during a video call, sending your own video image stops because the camera is not active. You can, however, still see the video of the recipient.

Note: Even if you have denied video sending during a video call, the call will still be charged as a video call. Check the pricing with your network operator or service provider.

To end the video call, in the Imaging mode or in the Fold open mode, press .

Call waiting

You can answer a call while you have another call in progress if you have activated **Call waiting** in **Tools** > **Settings** > **Call** > **Call waiting**.

To answer the waiting call, press . The first call is put on hold.

To switch between the two calls, select **Swap**. Select **Options** > **Transfer** to connect an incoming call or a call on hold with an active call and to disconnect yourself from the calls. To end the active call, press . To end both calls, select **Options** > **End all calls**.

Options during a voice call

Many of the options that you can use during a voice call are network services. Select **Options** during a call for some of the following options: **Mute** or **Unmute**, **Answer**, **Decline**, **Swap**, **Hold** or **Unhold**, **Activate handset**, **Activate loudsp.**, or **Activate handsfree** (if a compatible headset with Bluetooth connectivity is attached), **End active call** or **End all calls**, **New call**, **Conference**, and **Transfer**. Select from the following:

Replace—To end an active call and replace it by answering the waiting call.

Send MMS (in UMTS networks only)—To send an image or a video in a multimedia message to the other participant of the call. You can edit the message and change the recipient before sending. Press to send the file to a compatible device ( ).

Send touch tones—To send touch tone strings, for example, a password. Enter the touch string or search for it in **Contacts**. To enter a wait character (**w**) or a pause character (**p**), press * repeatedly. Select **OK** to send the tone.

Tip! You can add touch tones to the **Phone number** or **Touch tones** fields in a contact card.

Options during a video call

Select **Options** during a video call for the following options: **Enable** or **Disable** (audio in the Fold open mode; video, audio, or both in the Imaging mode), **Activate handset** (if a headset with Bluetooth connectivity is attached), **Activate loudsp.**, or **Activate handsfree** (Fold open mode only, and if a headset with Bluetooth connectivity is attached), **End active call**, **Change image order**, **Zoom in**/**Zoom out** (Imaging mode only), and **Help**.

Log

Recent calls

To monitor the phone numbers of missed, received, and dialed calls, press , and select **My own** > **Log** > **Recent calls**. The device registers missed and received calls only if the network supports these functions, the device is switched on, and within the network service area.

Tip! When you see a note in the standby mode about missed calls, select **Show** to access the list of missed calls. To call back, scroll to a name or number, and press .

To clear all recent call lists, select **Options** > **Clear recent calls** in the recent calls main view. To clear one of the call registers, open the register you want to erase, and select **Options** > **Clear list**. To clear an individual event, open a register, scroll to the event, and press .

Call timers

To monitor the approximate duration of your incoming and outgoing calls, press , and select **My own** > **Log** > **Call timers**.

To set the call duration to show on the display each time a call is active, select **My own**> **Log** > **Options** > **Settings** > **Show call duration**. Select **Yes** or **No**.

Note: The actual time invoiced for calls by your service provider may vary, depending on network features, rounding off for billing, and so forth.

To clear call duration timers, select **Options** > **Clear timers**. For this you need the lock code, see "Security", "Phone and SIM," p. 96.

Packet data

To check the amount of data sent and received during packet data connections, press , and select **My own** > **Log** > **Packet data**. For example, you may be charged for your packet data connections by the amount of data sent and received.

Monitor all communication events

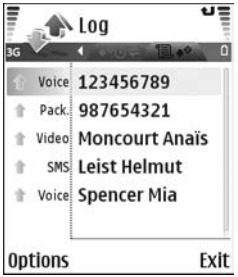
Icons in **Log**:

Incoming

Outgoing

Missed communication events

To monitor all voice and video calls, text messages, or data connections registered by the device, press , select **My own** > **Log**, and press to open the general log. For each communication event, you can see the sender or recipient name, phone number, name of the service provider, or access point. You can filter the general log to view just one type of event and create new contact cards based on the log information.



Tip! If you want to see the duration of a voice call on the main display during an active call, select **Options** > **Settings** > **Show call duration** > **Yes**.

Tip! To view a list of sent messages, press , and select **Messaging** > **Sent**.

Subevents, such as a text message sent in more than one part and packet data connections, are logged as one communication event. Connections to your mailbox, multimedia messaging centre, or Web pages are shown as packet data connections.

To filter the log, select **Options** > **Filter** and a filter.

To erase the contents of the log, recent calls register, and messaging delivery reports permanently, select **Options**> **Clear log**. Select **Yes** to confirm.

To set the **Log duration**, select **Options** > **Settings** > **Log duration**. The log events remain in the phone memory for a set number of days after which they are automatically erased to free memory. If you select **No log**, all the log contents, recent calls register, and messaging delivery reports are permanently deleted.

To view the details of a communication event, in the general log view scroll to an event, and press the scroll key.

Tip! In the details view you can copy a phone number to the clipboard, and paste it to a text message, for example. Select **Options** > **Copy Number**.

Packet data counter and connection timer: To view how much data, measured in kilobytes, is transferred and how long a certain packet data connection lasts, scroll to an incoming or outgoing event indicated by **Pack.**, and select **Options** > **View details**.

Personalize your device

Your service provider may have requested that certain features be disabled or not activated in your device. If so, they will not appear on your device menu. Your device may also have been specially configured for your network provider. This configuration may include changes in menu names, menu order, and icons. Contact your service provider for more information.

- To use the standby main display for fast access to your most frequently used applications, see "Active standby mode," p. 29.
- To change the standby mode background image or what is shown in the screen saver, see "Change the look of your device," p. 28, and "Cover display settings," p. 101.
- To customize the ringing tones, see "Profiles—Set tones," p. 27.
- To change the shortcuts assigned for the different presses of the scroll key and left and right selection keys in the standby mode, see "Standby mode," p. 92. The scroll key shortcuts are not available if the active standby is on.

- To change the clock shown in the standby mode, press , and select **Clock** > **Options** > **Settings** > **Clock type** > **Analog** or **Digital**.
- To change the clock alarm tone, press , and select **Clock** > **Options** > **Settings** > **Clock Alarm tone** and a tone.
- To change the calendar alarm tone, press , and select **Calendar** > **Options** > **Settings** > **Calendar alarm tone** and a tone.
- To change the welcome note to a text or an image, press , and select **Tools** > **Settings** > **Phone** > **General** > **Welcome note or logo**.
- To assign an individual ringing tone to a contact, press , and select **Contacts**. See "Add ringing tones for contacts," p. 32.
- To assign 1-touch dialing to a contact, press a numbered key in the standby mode (1 is reserved for the voice mailbox), and press . Select **Yes**, then select a contact.
- To rearrange the main menu, in the main menu, select **Options** > **Move**, **Move to folder**, or **New folder**. You can move less used applications into folders, and place applications that you use more often into the main menu.

Profiles—Set tones

To set and customize the ringing tones, message alert tones, and other tones for different events, environments, or caller groups, press , and select **Tools** > **Profiles**. If the currently selected profile is other than **Normal**, the profile name is shown at the top of the display in the standby mode.

To change the profile, press in the standby mode. Scroll to the profile you want to activate, and select **OK**.

To modify a profile, press , and select **Tools** > **Profiles**. Scroll to the profile, and select **Options** > **Customize**. Scroll to the setting you want to change, and press to open the choices. Tones stored on the memory card are indicated with . You can scroll through the tone list and listen to each one before you make your selection. Press any key to stop the sound.

Tip! When you choose a tone, **Tone downloads** opens a list of bookmarks. You can select a bookmark and start connection to a Web page to download tones.

Tip! For information on how to change the alert tone for the calendar or clock, see "Personalize your device," p. 26.

To create a new profile, select **Options** > **Create new**.

Offline profile

The **Offline** profile lets you use the phone without connecting to the wireless network. When you activate the **Offline** profile, the connection to the wireless network is turned off, as indicated by ✕ in the signal strength indicator. All wireless phone signals to and from the device are prevented. If you try to send messages, they are placed in the outbox to be sent later.

Warning: In the offline profile you cannot make or receive any calls, except make calls to certain emergency numbers, or use other features that require network coverage. To make calls, you must first activate the phone function by changing profiles. If the device has been locked, enter the lock code.

Warning: Your device must be switched on to use **Offline** profile. Do not switch the device on when wireless device use is prohibited or when it may cause interference or danger.

To leave the **Offline** profile, press , and select **Tools** > **Profiles**, select another profile, and select **Options** > **Activate** > **Yes**. The phone re-enables wireless transmissions (providing there is sufficient signal strength). If a Bluetooth connection is activated before entering the **Offline** profile, it will be deactivated. A Bluetooth connection is automatically reactivated after leaving the **Offline** profile.
See "Bluetooth connection settings," p. 78.

Transfer content from another device

You can copy contacts, calendar, images, video, and sound clips using a Bluetooth connection, from a compatible Nokia Series 60 device.

You can use your Nokia N90 device without a SIM card. The offline profile is automatically activated when the device is switched on without a SIM card. This allows you to use the SIM card in another device.

To avoid duplicate entries, you can transfer the same type of information, for example, contacts, from the other device to your Nokia N90 only once.

Before starting the transfer, you must activate Bluetooth connectivity on both devices. On each device, press , and select **Connect.** > **Bluetooth**. Select **Bluetooth** > **On**. Give a name to each device.

To transfer content:

1. Press , and select **Tools** > **Transfer** on your Nokia N90. Follow the instructions on the screen.
2. The device searches for devices with Bluetooth connectivity. When it has finished the search, select your other phone from the list.
3. You are asked to enter a code on your Nokia N90. Enter a code (1-16 digits), and select **OK**. Enter the same code on the other phone, and select **OK**.
4. The **Transfer** application is sent to the other phone as a message.
5. Open the message to install **Transfer** on the other phone, and follow the instructions on the screen.
6. From your Nokia N90, select the content you want to copy from the other phone.

Content is copied from the memory and memory card of the other phone to your Nokia N90 and memory card. Copying time depends on the amount of data to be transferred. You can cancel copying and continue later. The **Transfer** application is added to the main menu of the other phone.

Change the look of your device

To change the look of your phone displays, such as the wallpaper and icons, press , and select **Tools** > **Themes**. The active theme is indicated by . In **Themes** you can group together elements from other themes or select images from the **Gallery** to Personalize themes further. The themes on the memory card are indicated by . The themes on the memory card are not available if the memory card is not inserted in the phone. If you want to use the themes saved in the memory card without the memory card, save the themes in the phone memory first.

See also "Cover display settings," p. 101.

To open a browser connection and download more themes, select **Theme downloads**.

To activate a theme, scroll to it, and select **Options** > **Apply**.

To preview a theme, scroll to it, and select **Options** > **Preview**.

To edit themes, scroll to a theme, and select **Options** > **Edit** to change the following options:

- **Wallpaper**—The image to be shown as a background image in the standby mode.
- **Power saver**—The power saver type on the main display: date and time, or a text you have written yourself. See also **Power saver time-out**, p. 93.
- **Image in 'Go to'**—The background image for the **Go to** application.

To restore the selected theme back to its original settings, select **Options** > **Restore orig. theme** when you edit a theme.

Active standby mode

Use your standby main display for fast access to your most frequently used applications. By default, the active standby mode is on.

Press , select **Tools** > **Settings** > **Phone** > **Standby mode** > **Active standby**, and press to switch the active standby on or off.

The active standby display is shown with default applications across the top of the screen, and calendar, to-do, and player events listed below.

Scroll to an application or event, and press .

The standard scroll key shortcuts available in the standby mode cannot be used when the active standby mode is on.

To change the default applications shortcuts:

1 Press , select **Tools** > **Settings** > **Phone** > **Standby mode** > **Active standby apps.**, and press .

2 Highlight a shortcut to an application, and select **Options** > **Change**.

3 Select a new application from the list, and press .

Some shortcuts may be fixed, and you are not able to change them.

Contacts

Press , and select **Contacts**. In **Contacts** you can add a personal ringing tone or a thumbnail image to a contact card. You can also create contact groups, which allow you to send text messages or e-mail to many recipients at the same time. You can add received contact information (business cards) to contacts. See "Data and settings," p. 61. Contact information can only be sent to or received from compatible devices.

Tip! Regularly back up the phone information to the memory card. You can restore the information, such as contacts, to the phone later. See "Memory card tool," p. 13. You can also use Nokia PC Suite to back up your contacts to a compatible PC. See the CD-ROM, if supplied in the sales package.

Options in **Contacts** are **Open**, **Call**, **Create message**, **New contact**, **Open conversation**, **Edit**, **Delete**, **Duplicate**, **Add to group**, **Belongs to groups**, **Mark/Unmark**, **Copy/Copy to SIM direct.**, **SIM contacts**, **Go to web address**, **Send**, **Memory details**, **Settings**, **Help**, and **Exit**.

Save names and numbers

1 Select **Options** > **New contact**.

2 Fill in the fields that you want, and select **Done**.

Tip! If you use video sharing with a contact, save the contact's session initiation protocol (SIP) address to the **Web address** field of the contact card. Enter the SIP address in the format sip:username@domainname (you can use an IP address instead of a domain name).

To edit contact cards in **Contacts**, scroll to the contact card you want to edit, and select **Options** > **Edit**.

To delete a contact card in **Contacts**, select a card, and press . To delete several contact cards at the same time, press and to mark the contacts, and press to delete.

Tip! To add and edit contact cards, use Nokia Contacts Editor available in Nokia PC Suite. See the CD-ROM, if supplied in the sales package.

To attach a small thumbnail image to a contact card, open the contact card, and select **Options** > **Edit** > **Options** > **Add thumbnail**. The thumbnail image is shown when the contact calls.

Tip! Speed dialling is a quick way to call frequently used numbers. You can assign speed dialling keys to eight phone numbers. See "Speed dial a phone number," p. 17.

Tip! To send contact information, select the card you want to send. Select **Options** > **Send** > **Via text message**, **Via multimedia**, or **Via Bluetooth**. See "Messaging," p. 55, and "Send data using a Bluetooth connection," p. 79.

Default numbers and addresses

You can assign default numbers or addresses to a contact card. In this way if a contact has several numbers or addresses, you can easily call or send a message to the contact to a certain number or address. The default number is also used in voice dialling.

1 In contacts, select a contact, and press ◉.
2 Select **Options** > **Defaults**.
3 Select a default to which you want to add a number or an address, and select **Assign**.
4 Select a number or an address you want to set as a default.

The default number or address is underlined in the contact card.

Copy contacts

If you have phone numbers stored on the SIM card, copy them to **Contacts**. Entries that are saved only on the SIM card are not shown in the contacts directory, and for incoming calls and messages, the device cannot match the number to the name.

When a new SIM card is inserted in the device and you open **Contacts** for the first time, you are asked if you want to copy the contact entries on the SIM card to the device memory. Select **Yes** to copy the entries to your contacts directory.

To copy individual names and numbers from a SIM card to your device, press , and select **Contacts** > **Options** > **SIM contacts** > **SIM directory**. Select the names you want to copy and **Options** > **Copy to Contacts**.

To copy contacts to your SIM card, press , and select **Contacts**. Select the names you want to copy and **Options** > **Copy to SIM direct.**, or **Options** > **Copy** > **To SIM directory**. Only the contact card fields supported by your SIM card are copied.

Tip! You can synchronize your contacts to a compatible PC with Nokia PC Suite. See the CD-ROM, if supplied in the sales package.

SIM directory and other SIM services

For availability and information on using SIM card services, contact your SIM card vendor. This may be the service provider, network operator, or other vendor.

Press , and select **Contacts** > **Options** > **SIM contacts** > **SIM directory** to see the names and numbers stored on the SIM card. In the SIM directory you can add, edit, or copy numbers to contacts, and you can make calls.

To view the list of fixed dialling numbers, select **Options** > **SIM contacts** > **Fixed dialing contacts**. This setting is only shown if supported by your SIM card.

To restrict calls from your phone to selected phone numbers, select **Options** > **Activ. fixed dialing**. To add new numbers to the fixed dialling list, select **Options** > **New SIM contact**. You need the PIN2 code for these functions.

When you use **Fixed dialing**, packet data connections are not possible, except when sending text messages over a packet data connection. In this case, the message centre number and the recipient's phone number must be included on the fixed dialling list.

When fixed dialing is activated, calls may be possible to the official emergency number programmed into your device.

Add ringing tones for contacts

When a contact or group member calls you, the phone plays the chosen ringing tone (if the caller's telephone number is sent with the call and your phone recognizes it).

1 Press ⦿ to open a contact card, or go to the groups list, and select a contact group.

2 Select **Options** > **Ringing tone**. A list of ringing tones opens.

3 Select the ringing tone you wish to use for the individual contact or the selected group.

To remove the ringing tone, select **Default tone** from the list of ringing tones.

Create contact groups

Options in the groups list view are **Open**, **New group**, **Delete**, **Rename**, **Ringing tone**, **Memory details**, **Settings**, **Help**, and **Exit**.

1 In **Contacts**, press ◔ to open the groups list.

2 Select **Options** > **New group**.

3 Write a name for the group or use the default name **Group %N**, and select **OK**.

4 Open the group, and select **Options** > **Add members**.

5 Scroll to a contact, and press ⦿ to mark it. To add multiple members at a time, repeat this action on all the contacts you want to add.

6 Select **OK** to add the contacts to the group.

To rename a group, select **Options** > **Rename**, enter the new name, and select **OK**.

Remove members from a group

1 In the groups list, open the group you want to modify.

2 Scroll to the contact, and select **Options** > **Remove from group**.

3 Select **Yes** to remove the contact from the group.

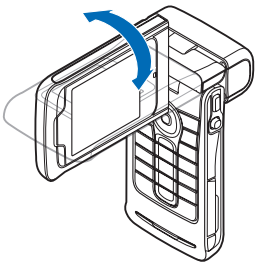
Tip! To check to which groups a contact belongs, scroll to the contact, and select **Options** > **Belongs to groups**.

Camera and Gallery

Camera

The Nokia N90 device supports an image capture resolution of 1600 x 1200 pixels. The image resolution in these materials may appear different.

To activate the camera, activate the Imaging mode. See "Imaging mode," p. 7. The camera starts, and you can see the view to be captured.



Warning! You cannot make emergency calls in the Imaging mode because the keypad is not active. To make an emergency call, activate the Fold open mode.

If the camera is in **Video mode**, open the image mode by selecting **Options** > **Image mode**.

The images are automatically saved in the gallery in .jpeg format. You can send images in a multimedia message, as an e-mail attachment or using a Bluetooth connection.

Take pictures in the Imaging mode

To make lighting and color adjustments before taking a picture, press the joystick, and select **Flash**, **White balance**, **Exposure value**, or **color tone**. See "Setup settings—Adjust color and lighting," p. 36.

To select a scene, press the joystick, and select **Scene**. See "Scenes," p. 36.

Your device also has a swing axis camera, which makes capturing views in different situations easier. You can turn the camera unit clockwise and counterclockwise. See "Camera mode," p. 7.

Options before taking a picture are **Video mode**, **Go to Gallery**, **Image setup**, **Sequence mode**/ **Normal mode**,**Activate self-timer**, **Settings**, and **Help**.

To lock the focus on an object, press the capture key halfway down. The green locked focus indicator appears on the display. If the focus was not locked, the red locked focus indicator appears. Release the capture key, and press it again halfway down. You can, however, take the picture without locking the focus.

To take a picture, press the capture key. Do not move the device before the image is saved. The image is saved automatically in the **Images & video** folder of **Gallery**. See "Gallery," p. 45.

Tip! You can also take pictures conveniently in the Camera mode. See "Take pictures in the Camera mode," p. 38.

Imaging mode camera indicators show the following:

- The phone memory ( ) and memory card ( ) indicators (1) show where images are saved.
- The images indicator (2) estimates how many images, depending on the selected image quality, can fit in the remaining memory of your device or the memory card.
- The scene indicator (3) shows the active scene. See "Scenes," p. 36.
- The flash indicator (4) shows if the flash is set to **Automatic** ( ), **Red eye redu.** ( ), **Forced** ( ), or **Off** ( ).

- The green focus indicator (5) is displayed when the focus point is locked by the viewfinder (not visible in sequence mode).
- The self-timer indicator (6) shows that the self-timer is activated. See "You in the picture—self-timer," p. 35.
- The sequence mode indicator (7) shows that the sequence mode is active. See "Take pictures in a sequence," p. 35.
- The resolution indicator (8) shows the selected image quality. See "Adjust still image camera settings," p. 37.

Shortcuts are as follows:

- Press the joystick up and down to zoom in and zoom out. The zoom indicator, which appears on the side pane, shows the zoom level.
- Press the joystick to enter the **Image setup** settings. See "Setup settings—Adjust color and lighting," p. 36.
- Press the joystick left or right to change the flash mode.

Saving the captured image may take longer if you change the zoom, lighting, or color settings.

When taking a picture, note the following:

- It is recommended to use both hands to keep the camera still.
- To take images or record video in different environments, use the proper scene for each environment. See "Scenes," p. 36.

- To make lighting and color adjustments before taking a picture, press the joystick, or select **Options** > **Image setup** > **Scene**, **Flash**, **White balance**, **Exposure value**, or **color tone**. See "Setup settings—Adjust color and lighting," p. 36.
- The quality of a zoomed picture is lower than that of a nonzoomed picture.
- The camera goes into battery saving mode if there are no key presses in a while. To continue taking pictures, press the capture key.

After the image is taken, note the following:

- If you do not want to keep the image, select **Options** > **Delete**.
- To return to the viewfinder to take a new picture, press the capture key halfway down.
- To send the image **Via multimedia**, **Via e-mail**, or **Via Bluetooth**, select **Options** > **Send**. For more information, see "Messaging," p. 55 and "Bluetooth connection," p. 78. This option is not available during an active call.
- To send an image to the other party during an active call, select **Options** > **Send to caller**.
- To edit the picture, select **Options** > **Edit**. See "Edit images," p. 39.
- To print the picture, select **Options** > **Print**. See "Image print," p. 48.

Take pictures in a sequence

Select **Options** > **Sequence mode** to set the camera to take six pictures in a sequence. You can also use the sequence mode with the self-timer. See "You in the picture—self-timer," p. 35. The pictures are automatically saved in **Gallery**.

To take the pictures, press and hold the capture key. If you want to take less than six pictures, release the capture key after the desired amount of pictures.

After taking the pictures, they are shown in a grid on the main display. To view a picture, press the joystick to open it.

To return to the sequence mode viewfinder, press the capture key halfway down.

You in the picture—self-timer

Use the self-timer to delay the taking of a picture so that you can include yourself in the picture. To set the self-timer delay, select **Options** > **Activate self-timer** > **2 seconds** or **10 seconds**. To activate the self-timer, select **Activate**. The self-timer indicator ( ) blinks and the device beeps when the timer is running. The camera takes the picture after the selected delay has elapsed. You can also use the self-timer **Activate self-timer** in the sequence mode. See "Take pictures in a sequence," p. 35.

Tip! Select **Options** > **Activate self-timer** > **2 seconds** to keep your hand steady when taking a picture.

Flashlight

Keep a safe distance when using the flash. Do not use the flash on people or animals at close range. Do not cover the flash while taking a picture.

The camera has an LED flashlight for low light conditions. The following flashlight modes are available: **Automatic** (), **Red eye redu.** (), **Forced** (), and **Off** ().

Select **Options** > **Image setup** > **Flash** > **Forced** to use the flashlight.

If the flashlight is set to **Off** or **Automatic** during bright conditions, the flashlight still emits a low light when an image is captured. This allows the subject of the picture to see when the picture is taken. There is no flashlight effect on the resultant picture.

If the flashlight is set to **Red eye redu.**, it decreases the redness of the eyes in the picture.

Setup settings—Adjust color and lighting

To enable the camera to reproduce colors and lighting more accurately, or to add effects to your pictures or videos, select **Options** > **Image setup** or **Video setup**, and select from the following options:

Scene—Select a proper scene for the environment in which you are taking pictures. See "Scenes," p. 36. Every scene uses its own lighting settings that have been adjusted according to a certain kind of environment.

Flash (images only)—Set the flash to **Automatic**, **Red eye redu.**, **Forced**, or **Off**. See "Flashlight," p. 36.

White balance—Select the current lighting condition from the list. This allows the camera to reproduce colors more accurately.

Exposure value (images only)—Adjust the exposure time of the camera.

Color tone—Select a color effect from the list.

The screen display changes to match any settings made, showing you how the change affects the pictures or videos.

The settings return to the default settings when you close the camera. If you select a new scene, the settings are replaced by the settings of the selected scene. See "Scenes," p. 36. If you, however, need to change the setup settings, you can change them after selecting a scene.

Scenes

A scene helps you to find the right color and lighting settings for the current environment. Select a proper scene for taking pictures or recording video clips from a scenes list. The settings of each scene have been set according to a certain style, or environment in which the pictures are taken. Select **Options** > **Image setup**/**Video setup** > **Scene**:

Video scenes

Normal ( )(default)—Use this scene in all conditions.

Night ( )—Use this scene in low light conditions.

Image scenes

Automatic ( ) (default)—Use this scene in all conditions.

Close-up mode ( )—Use this scene for close up photography.

Night ( )—Use this scene in low light conditions.

Sports ( )—Use this scene to take pictures of fast moving objects. Note that when you use this scene, the resolution of the images is reduced from 1600x1200 to 800x600. See "**Image quality**", p. 37.

Portrait ( )—Use this scene to take portrait pictures, such as head shots and sitting poses.

Landscape ( )—Use this scene when you take pictures of objects that are further away.

User defined ( )—Use this scene to create a personalized scene with your own flash, white balance, exposure value, and color tone settings.

When taking pictures, the default scene is **Automatic**. If you, however, select the **User defined** scene, it is set as the default scene.

To make your own scene suitable for a certain environment, select **User defined** scene. In the user scene you can adjust **Based on scene**, **Flash**, **White balance**, **Exposure value**, **color tone**, and **Reset user scene** options. To copy the settings of another scene, select **Based on scene** and the desired scene.

Adjust still image camera settings

There are two kinds of settings for the still image camera in the Imaging mode: **Image setup** settings and main settings. To adjust **Image setup** settings, see "Setup settings—Adjust color and lighting," p. 36. The setup settings return to the default settings after you close the camera, but the main settings remain the same until you change them again. To change the main settings, select **Options** > **Settings** and from the following:

Image quality—**High 2M - Print** (resolution 1600x1200), **Med. 0.5M - Email** (resolution 800x600), or **Low 0.3M - MMS** (resolution 640x480). The better the image quality, the more memory the image consumes. The quality of a zoomed picture is lower than that of a nonzoomed picture. If you want to print the image, select **High 2M - Print**. If you want to send it through e-mail, select **Med. 0.5M - Email**. To send the image through MMS, select **Low 0.3M - MMS**.

Add to album—Select whether you want to save the image to a certain album in the gallery. If you select **Yes**, a list of available albums opens.

Show focus point (image only)—Select **Yes** if you want the focus point to be visible on the main display when taking a picture.

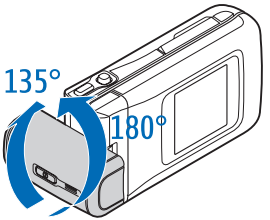
Show captured image—Select **Yes** if you want to see the captured image after it is taken, or **No** if you want to continue taking pictures immediately.

Memory in use—Select where to store your images.

Take pictures in the Camera mode

The camera in the Camera mode can be activated and used also during an active call.

1 To activate the Camera mode, turn the camera unit in the Fold closed mode. See "Camera mode," p. 7. The active keypad lock is deactivated, and the viewfinder appears on the cover display.



To zoom in or zoom out, move the joystick to the right or to the left.

2 To lock the focus on an object, press the capture key halfway down. The green locked focus indicator appears on the display. If the focus was not locked, the red locked focus indicator appears. Release the capture key, and press it again halfway down. You can, however, take the picture without locking the focus.

3 To take the picture, press the capture key all the way down. The picture is automatically saved in the gallery. See "Gallery," p. 45.

To keep the image on the display after taking it, hold the capture key down. To return to the viewfinder, release the capture key.

Camera mode indicators show the following:

- The mode indicator (1) shows the active scene. See "Scenes," p. 36.
- The phone memory ( ) and memory card ( ) indicators (2) show where images are saved.
- The images indicator (3) estimates how many images, depending on the selected image quality, can fit in the remaining memory of your device or the memory card.
- The green focus indicator (4) is displayed when the focus point is locked by the viewfinder.
- The self-timer indicator (5) shows that the self-timer is activated. See "You in the picture—self-timer," p. 35.
- The flash indicator (6) shows if the flash is set to **Automatic** ( ), **Red eye redu.** ( ), **Forced** ( ), or **Off** ( ). Select between the flash modes by moving the joystick up or down. You can see the flash mode in the pop-up window on the display.
- The zoom indicator (7) shows the zoom level. Move the joystick left and right to zoom in and zoom out.

- The joystick indicator ( ) (8) indicates that the **Options** menu is available. Press the joystick to open the **Options** menu.

To close the camera in the Camera mode, return to the Fold closed mode by turning the camera unit. See "Fold closed mode," p. 6.

Camera mode options

To adjust the image settings, press the joystick, and select from the following options:

Shooting mode—To select a proper scene for the image capturing environment. See "Scenes," p. 36.

Flip view—To flip the picture 180 degrees. You need this option when you take a picture, for example, of yourself; when you turn the camera unit so that it is facing you, the viewfinder is upside down.

Self-timer—To activate the self-timer. Select **2 seconds** or **10 seconds**.

Exposure value—To adjust the brightness of the picture.

Settings—To adjust the **Image quality**, **Memory in use**, and **Show captured img.** settings. See "Adjust still image camera settings," p. 37.

Edit images

To edit the pictures after taking them, or the ones already saved in **Gallery**, select **Options** > **Edit**. You can open the **Gallery** application in the Imaging mode or in the Fold open mode.

Options in the edit main view are **Apply effect**, **Close edit**, **Undo**, **Send**, **Full screen**/**Normal screen**, **Zoom in**/**Zoom out**, **Save**, **Print** and **Help**.

Select **Apply effect** to, for example, crop and rotate the image; adjust the brightness, color, contrast, and resolution; and add effects, text, clip art, or a frame to the picture.

To crop an image, select **Options** > **Apply effect** > **Crop**. Select **Manual** to crop the image size manually, or select a predefined aspect ratio from the list. If you select **Manual**, a cross appears on the upper left corner of the image. To move the cross, and select the area to be cropped, move the joystick. Select **Set**. Another cross appears on the lower right corner. Select again the area to be cropped, and select **Crop**. The selected areas form the cropped image.

To reduce redness of the eyes in an image, select **Options** > **Apply effect** > **Red eye reduction**. Move the cross onto the eye, and press the joystick. A loop appears on the display. To resize the loop to fit the size of the eye, move the joystick. Press the joystick to reduce the redness.

To add clip art to an image, select **Options** > **Apply effect** > **Clip-art**. Select the item you want to add from the list, and press the joystick. To move, rotate, and change the size of the item, select **Options** > **Move**, **Resize**, or **Rotate**.

To add text to an image, select **Options** > **Apply effect** > **Text**. Enter the text, and select **OK**. To edit the text, select **Options** > **Move**, **Resize**, **Rotate**, or **Select color**.

Shortcuts in the Fold open mode:

- To view an image in full screen, press * . To return to the normal view, press * again.
- To rotate an image clockwise or counterclockwise, press 1 and 3 .
- To zoom in or zoom out, press 5 and 0 .

Tips on taking good photographs

By turning the swing axis camera, capturing the views in demanding situations is easier. You can turn the camera unit clockwise or counterclockwise. See "Camera mode," p. 7.

Picture quality

Use the appropriate picture quality. The camera has three picture quality modes (**High 2M – Print**, **Med. 0.5M – Email**, and **Low 0.3M – MMS**). Use the **High 2M – Print** setting to make sure that the camera produces the best picture quality available. Note however, that better picture quality requires more storage space. For MMS and e-mail attachments it may be necessary to use the **Med. 0.5M – Email** or **Low 0.3M – MMS** setting. To define the quality in the image mode in the camera, select **Options** > **Settings**.

Background

Use a simple background. For portraits and other pictures with people, avoid having your subject in front of a cluttered, complex background that may distract attention from the subject. Move the camera, or the subject, when these conditions cannot be met. Move the camera closer to the object to take clearer portraits.

Depth

When shooting landscapes and sceneries, add depth to your pictures by placing objects into the foreground. Note however, that if the foreground object is too close to camera, it may be blurred.

Lighting conditions

Changing the source, amount, and direction of light can change photographs dramatically. Here are some typical lighting conditions:

- **Light source behind the subject.** Avoid placing your subject in front of a strong light source. If the light source is behind the subject or visible in the display, the resulting picture may have weak contrast, may be too dark, and may contain unwanted light effects. You can

also use the flashlight to add more lighting to shadows. See "Flashlight," p. 36.

- **Sidelit subject.** Strong side light gives a dramatic effect but may be too harsh, resulting in too much contrast.
- **Light source in front of the subject.** Harsh sunlight may cause the subjects to squint their eyes. The contrast may also be too high.
- **Optimal lighting** is found in situations where there is plenty of diffused, soft light available, for example, on a bright, partially cloudy day or on a sunny day in the shadow of trees.

Record videos

To activate the camera and the viewfinder on the main display, activate the Imaging mode. See "Take pictures in the Imaging mode," p. 33. The camera starts, and you can see the view to be captured.

If the camera is in **Image mode**, open the video recorder view by selecting **Options** > **Video mode**.

To make lighting and color adjustments before recording a video, press the joystick, and select **White balance**, or **color tone**. See "Setup settings—Adjust color and lighting," p. 36.

To select a scene, press the joystick, and select **Scene**. See "Scenes," p. 36.

Options before recording video are **Image mode**, **Go to Gallery**,**Video setup**, **Settings**, and **Help**.

1. Press the capture key to start recording. The record icon ● is shown. The LED flash is lit, and a tone sounds, indicating to the subject that video is being recorded. There is no flash effect on the resultant video.
2. To pause recording at any time, select **Pause**. The pause icon ❚❚ blinks on the display. Video recording automatically stops if recording is set to pause and there are no key presses within a minute.
3. Select **Continue** to resume recording.
4. Select **Stop**, or press the capture key to stop recording. The video clip is automatically saved to the **Images & video** folder of **Gallery**. See "Gallery," p. 45.

Video recorder indicators show the following:

- The phone memory (📱) and memory card (💾) indicators (1) show where the video is saved.
- The current video length indicator (2) shows elapsed time and time remaining.
- The scene indicator (3) shows the active scene. See "Scenes," p. 36.

- The microphone indicator (4) shows that the microphone is muted.
- The file format indicator (5) indicates the format of the video clip according to the selected video quality.
- The video quality indicator (6) shows the selected video clip quality. See "Video settings," p. 42.

Shortcuts are as follows:

- Press the joystick up or down to zoom in or zoom out. The zoom indicator, which appears on the side pane, shows the zoom level.
- Press the joystick to enter the **Video setup** settings. See "Setup settings—Adjust color and lighting," p. 36.

After a video clip is recorded:

- To immediately play the video clip you just recorded, select **Options** > **Play**.
- If you do not want to keep the video, select **Options** > **Delete**.
- To return to the viewfinder to record a new video, press the capture key.
- To send the video **Via multimedia**, **Via e-mail**, or **Via Bluetooth**, select **Options** > **Send**. For more information, see "Messaging," p. 55 and "Bluetooth connection," p. 78. This option is not available during an active call.
- To send a video clip to the other party during an active call, select **Options** > **Send to caller**.
- To edit the video, select **Options** > **Edit**. See "Edit video clips," p. 43.

Video settings

There are two kinds of settings for the video recorder in the Imaging mode: **Video setup** settings and main settings. To adjust **Video setup** settings, see "Setup settings—Adjust color and lighting," p. 36. The setup settings return to the default settings after you close the camera, but the main settings remain the same until you change them again. To change the main settings, select **Options** > **Settings** and from the following:

Audio recording—Select **On** if you want to record both image and sound.

Video quality—Set the quality of the video clip to **High**, **Normal**, or **Sharing**. The quality is indicated with one of the following icons: (High), (Normal), or (Sharing). If you select **High** or **Normal**, the length of the video recording is restricted by the available space on your memory card, and up to 1 hour per clip. If you want to view the video on a TV or PC, select **High** video quality, which has CIF resolution (352x288) and file format .mp4. You cannot send video clips saved in the .mp4 format in a multimedia message. If you want to view the clip in mobile phones, select **Normal**, which has QCIF resolution (176x144) and file format .3gp.

To send the video clip through MMS, or send it through video sharing, select **Sharing** (QCIF resolution, file format .3gp). See "Video sharing," p. 19. The video clip is limited to 300 kB (approximately 20 seconds in duration) so that it can be conveniently sent as a multimedia message to a compatible device. Some networks, however, may only support sending of multimedia messages with a maximum size of 100 kB. Contact your service provider for more information.

Add to album—Select whether you want to save the recorded video clip to a certain album in **Gallery**. Selecting **Yes** opens a list of available albums.

Show captured video—If you select **Yes**, you can play the recorded video clip right after it is recorded by selecting **Options** > **Play** in the camera. If you select **No**, you can record a new video immediately.

Memory in use—Define the default memory store: phone memory or memory card.

If the phone memory starts to get low, recording quality may decrease. To free phone memory, move data to a compatible memory card or a PC, or delete data.

Tip! You can set the camera to use a compatible memory card for saving video by selecting **Options** > **Settings** > **Memory in use** > **Memory card**.

Edit video clips

You can edit video clips in **Gallery** in the Fold open mode or in the Imaging mode. See "Take pictures in the Imaging mode," p. 33, and "Gallery," p. 45.

To edit video clips and create custom video clips, scroll to a video clip, and select **Options** > **Edit**. You can create custom video clips by combining and trimming video clips, and adding images, sound clips, transitions, and effects. Transitions are visual effects that you can add in the beginning and end of the video or between the video clips.

In the video editor you can see two timelines: video clip timeline and sound clip timeline. If you add images, text, or transitions to a video clip, they are shown on the video clip timeline. To move on the timelines, scroll left or right. To switch between the timelines, scroll up or down.

Edit video, sound, image, text, and transitions

To create custom video clips, mark and select one or more video clips, and select **Options** > **Edit**.

In the Edit video view, you can insert video clips to make a custom video clip, and edit the clips by trimming and adding effects. You can add images and sound clips and change their duration, and also add text and transitions to the clip. Press ◔ and ◔ to move between the video clip and the sound clip.

To modify the video, select from the following options:

Edit video clip:

Cut—Trims the video clip in the Cut video clip view.

Add color effect—Inserts a color effect on the video clip.

Use slow motion—Slows the speed of the video clip.

Mute sound/**Unmute sound**—Mutes or unmutes the original video clip sound.

Move (shown only if two or more video clips have been inserted)—Moves the video clip to the selected location.

Remove—Removes the video clip from the video.

Duplicate—Makes a copy of the selected video clip.

Edit text (shown only if you have added text)—To move, remove or duplicate text; change the color and style of the text; define how long it stays on the screen; and add effects to the text.

Edit image (shown only if you have added an image)—To move, remove or duplicate an image; define how long it stays on the screen; and set a background or a color effect to the image.

Edit sound clip:

Cut—Trims the sound clip in the Cut sound clip view.

Move (shown only if two or more sound clips have been inserted)—Moves the sound clip to the selected location.

Set duration—Changes the length of the sound clip.

Remove—Removes the sound clip from the video.

Duplicate—Makes a copy of the selected sound clip.

Edit transition—There are three types of transitions: at the start of a video, at the end of a video, and transitions between video clips. A start transition can be selected when the first transition of the video is active.

Insert:

Video clip—Inserts the selected video clip. A thumbnail of the video clip is shown in the main view. A thumbnail consists of the first non-black view of the video clip. The name and length of the selected video clip is also shown.

Image—Inserts the selected image. A thumbnail of the image is shown in the main view.

Text—Inserts text to the video clip. You can insert a title, subtitle, or credits.

Sound clip—Inserts the selected sound clip. The name and length of the selected sound clip is shown in the main view.

New sound clip—Records a new sound clip to the selected location.

Movie—To preview the movie in full screen or as a thumbnail, save the movie, or cut the movie to a proper size for sending it in a multimedia message.

Tip! To take a snapshot of a video clip, select **Options** > **Take snapshot** in the thumbnail Preview view or in the Cut video clip view.

To cut a video or sound clip, move to the preferred timeline and select **Options** > **Edit video clip** > **Cut** or **Options** > **Edit sound clip** > **Cut**. In the Cut video clip view or Cut sound clip view, to mark the starting point of the video or sound clip, select **Options** > **Start mk.** To mark the end of the video or sound clip, select **Options** > **End mark**. To play the cut clip, select **Options** > **Play marked section**. To save the changes, press **Done**.

To save your video, in the video editor main view, select **Options** > **Movie** > **Save**. To define the **Memory in use**, select **Options** > **Settings**. The default is the phone memory.

Tip! In the **Settings** view, you can define **Default video name**, **Default sc. shot name**, **Resolution**, and **Memory in use**.

Select **Send** > **Via multimedia**, **Via e-mail**, or **Via Bluetooth** if you want to send the video. Contact your service provider for details of the maximum multimedia message size that you can send. If your video is too large to be sent in a multimedia message, the symbol appears. Select **Options** > **Movie** > **Edit for MMS** to cut the movie.

Tip! If you want to send a video clip that is over the maximum multimedia message size allowed by your service provider, you can send the clip using Bluetooth.

See "Send data using a Bluetooth connection," p. 79.
You can also transfer your videos using Bluetooth into your Bluetooth-enabled personal computer, or by using a memory card reader (enhancement).

Gallery

To store and organize your images, video clips, sound clips, playlists, and streaming links, in the Fold open mode, press , and select **Gallery**. To open the gallery in the Imaging mode, select **Options** > **Go to Gallery**. In the Imaging mode, only the **Images & video** folder is available.

Tip! To switch from **Gallery** to the camera in the Imaging mode, select **Camera**.

Select **Images & video** , **Tracks** , **Sound clips** , **Links** , or **All files** , and press ◉ to open it.

You can browse and open folders; and mark, copy, and move items to folders. Sound clips, video clips, .ram files, and streaming links are opened and played in the RealPlayer application. See "RealPlayer™,"

p. 49. You can also create albums; and mark, copy, and add items to albums. See "Albums," p. 47.

Tip! You can transfer images from your device to a compatible PC with Nokia Phone Browser available in Nokia PC Suite. See the CD-ROM if supplied with your device.

Press ◉ to open a file. Videos, music, and sound clips open in **RealPlayer**. See "View images and video clips," p. 46.

To copy or move files to the memory card or to phone memory, select a file and **Options** > **organize** > **Copy to memory card**/**Move to memory card** or **Copy to phone mem.**/**Move to phone mem.**. Files stored on the memory card are indicated with .

To download files into **Gallery** in one of the main folders using the browser, select the download icon, for example ( ) to download images. The browser opens, and you can select a bookmark from which the site can download.

View images and video clips

Pictures taken and video clips recorded with the camera are stored in the **Images & video** folder in **Gallery**. The quality of a video clip is indicated with one of the following icons: (High), (Normal), and (Sharing). For more information on video quality, see "Video settings," p. 42. Images and video clips can also be sent to you in a multimedia message, as an e-mail attachment, or through a Bluetooth connection. To be able to view a received image or video clip in the gallery or in the media player, you must save it in the phone memory or on a memory card.

Open the **Images & video** folder in **Gallery**. The images and video clip files are in a loop, and ordered by date. The number of files can be seen on the display. To browse the files, scroll up or down. Press and hold the scroll key up or down to browse the files in a continuous loop. To move several files at a time, scroll left or right.

Tip! To navigate and open files in the Imaging mode, use the joystick.

Options in the **Images & video** main view are **Open** (images only), **Play** (videos only), **Send**, **Go to Camera**, **Add to Album**, **Albums**, **Print** (images only), **Edit**, **Delete**, **organize**, **Mark/Unmark**, **Help**, and **Exit**.

To edit a photo or a video clip, select **Options** > **Edit**. An image editor or a video editor opens.

To add an image or a video clip to an album in the gallery, select **Options** > **Add to Album**. See "Albums," p. 47.

To create custom video clips, select a video clip, or several clips, in the gallery, and select **Options** > **Edit**. See "Edit video clips," p. 43.

Options when viewing an image are **Zoom in**, **Send**, **Add to album**, **Set as wallpaper**, **Add to contact**, **Print**, **Edit**, **Delete**, **Rename**, **View details**, **Add to 'Go to'**, **Help**, and **Exit**.

To print your images on a printer connected to your device, or to store them on your MMC for later printing with a compatible device, select **Options** > **Print**. See "Image print," p. 48.

To zoom an image, select **Options** > **Zoom in**. The zooming ratio is at the top of the display. The zooming ratio is not stored permanently.

To delete an image or a video clip, press C.

Albums

With albums you can conveniently manage your images and video clips. To view the albums list, in the **Images & video** folder, select **Options** > **Albums**. The albums are ordered alphabetically. To view the content of an album, press the scroll key.

To create a new album, select **Options** > **New album**. Enter a name for the album, and select **OK**.

To add a picture or a video clip to an album in the gallery, scroll to a picture or video clip, and select **Options** > **Add to album**. A list of albums opens. Select the album to which you want to add the picture or video clip, and press the scroll key.

To remove a file from an album, press C. The file is not deleted from the **Images & video** folder in **Gallery**.

Imaging

Image print

You can print images with **Image print** by selecting the print option in the gallery, camera, image editor, image viewer, or the active standby mode.

Use **Image print** to print your images using a data cable, a Bluetooth connection, or your memory card.

You can only print images which are in .jpg format. The pictures taken with the camera are automatically saved in .jpg format.

Note: To print to a PictBridge-compliant printer, select the print option before you connect the USB cable.

Select the image you want to print and **Options** > **Print**.

Printer selection

When you use **Image print** for the first time, a list of available printers is displayed after you select the image. Select a printer you want to use. The printer is set as the default printer.

If you have connected a PictBridge-compliant USB printer using the CA-53 cable supplied with your device, the printer is automatically displayed.

If the default printer is not available, a list of available printing devices is displayed again.

To change the default printer, select **Options** > **Settings** > **Default printer**.

Print preview

The print preview view opens only when you start printing an image in the gallery or the active standby mode.

The images that you selected are displayed using predefined layouts. To change the layout, scroll left and right through the available layouts for the selected printer. If the images do not fit on a single page, scroll up or down to display the additional pages.

Options in print preview are **Print**, **Settings**, **Help**, and **Exit**.

Print settings

The available settings options vary, depending on the capabilities of the printing device you selected.

To set a default printer, select **Options** > **Default printer**.

To select the paper size, select **Paper size**, the size of paper from the list, and **OK**. Select **Cancel** to return to the previous view.

RealPlayer™

Press , and select **RealPlayer**. With **RealPlayer**, you can play video clips, sound clips, and playlists, or stream media files over the air. You can activate a streaming link when you browse Web pages, or store it in the phone memory or memory card. You can use RealPlayer also in the Imaging mode with limited key functions. See "Take pictures in the Imaging mode," p. 33.

RealPlayer supports files with extensions such as .aac, .awb, .m4a, .mid, .mp3, and .wav. However, **RealPlayer** does not necessarily support all file formats or all the variations of file formats. For example, **RealPlayer** will attempt to open all .mp4 files, but some .mp4 files may include content that is not compliant with 3GPP standards and, therefore, is not supported by this device.

Tip! You can transfer music files from your device to your memory card with Nokia Audio Manager available in Nokia PC Suite. See the CD-ROM if supplied with your device.

Play video or sound clips

Warning: Listen to music at a moderate level. Continuous exposure to high volume may damage your hearing.

Options in **RealPlayer** when a clip is selected are **Play**/**Continue**, **Play in full screen**/**Continue in full scr.**, **Stop**, **Mute**/**Unmute**, **Clip details**, **Send**, **Settings**, **Help**, and **Exit**.

1 To play a media file stored in phone memory, or on the memory card, select **Options** > **Open** and select:

Most recent clips—To play one of the last six files played in **RealPlayer**.

Saved clip—To play a file saved in **Gallery**. See "Gallery," p. 45.

Mem. card sound clips—To create a track list and play the files saved in the memory card. See "Create a track list," p. 50.

2 Scroll to a file, and press to play the file.

Tip! To view a video clip in full screen mode, press 2 . Press again to change back to normal screen mode.

Icons in **RealPlayer**: —Repeat; —Random; —Repeat and random; and —Loudspeaker muted.

Shortcuts during play:

- To fast forward video, press and hold .
- To rewind through the video clip, press and hold .
- To mute the sound, press and hold until the indicator is displayed. To turn on the sound, press and hold until you see the indicator.

Create a track list

To create a track list of the music tracks on your phone memory, or on the memory card:

1 Select **Options** > **New track list**.

2 Select the memory from which you want to select the music tracks.

3 Enter a name for the track list.

4 To mark the music tracks you want to include in the track list, select **Options** > **Mark/Unmark** > **Mark** or **Mark all**.

5 Select **Options** > **Select marked items**.

Tip! To leave the application open and music playing in the background, press twice to return to the standby mode. To return to the application, press , and select **RealPlayer**.

Stream content over the air

Many service providers require you to use an Internet access point (IAP) for your default access point. Other service providers allow you to use a WAP access point.

The access points may be configured when you first start your device.

Contact your service provider for more information.

Note: In **RealPlayer**, you can only open an rtsp:// URL address. However, **RealPlayer** will recognize an http link to a .ram file.

To stream content over the air, select a streaming link saved in **Gallery**, on a Web page, or received in a text message or multimedia message. Before live content begins streaming, your device connects to the site and starts loading the content. The content is not saved in your device.

Receive RealPlayer settings

You may receive **RealPlayer** settings in a special text message from the network operator or service provider. See "Data and settings," p. 61. For more information, contact your network operator or service provider.

Change the RealPlayer settings

Select **Options** > **Settings** and from the following:

Video—To have **RealPlayer** automatically repeat video clips after they finish playing.

Audio—To select if you want to repeat playing of track lists and play sound clips on a track list in random order.

Connection—To select whether to use a proxy server, change the default access point, and set the port range used when connecting. Contact your service provider for the correct settings.

Proxy settings:

- **Use proxy**—To use a proxy server, select **Yes**.
  - **Proxy serv. address**—Enter the IP address of the proxy server.
  - **Proxy port number**—Enter the port number of the proxy server.

Glossary: Proxy servers are intermediate servers between media servers and their users. Some service providers use them to provide additional security or speed up access to browser pages that contain sound or video clips.

Network settings:

- **Default access point**—Scroll to the access point you want to use to connect to the Internet, and press ◉.
- **Online time**—Set the time for **RealPlayer** to disconnect from the network when you have paused a media clip playing through a network link, select **User defined**, and press ◉. Enter the time, and select **OK**.
- **Lowest UDP port**—Enter the lowest port number of the servers port range. The default value is 6970.
- **Highest UDP port**—Enter the highest port number of the servers port range. The default value is 32000.

Select **Options** > **Advanced settings** to edit the bandwidth values for different networks.

Movie Director

To create muvees, press , and select **Imaging** > **Movie**. muvees are short, edited video clips that may contain video, images, music, and text. **Quick muvee** is created automatically by **Movie director** after you select the style for the muvee. **Movie director** randomly selects images, and uses the default music and text associated with the chosen style. Every style has its own font style, color, music, and pace. In a **Custom muvee**you can select your own video and music clips, images and style, and add opening and closing message. You can send muvees with MMS.

Open **Movie**, and press ◔ or ◔ to move between the and views. You can also return to the main view from the view by selecting **Done**.

The view contains a list of video clips that you can **Play**, **Send**, **Rename**, and **Delete**.

Create a quick muvee

1 In the **Movie director** main view, select **Quick muvee**.
2 Select a style for the muvee from the style list. The created muvee is saved in **Movie director** muvee list. The muvee is played automatically after saving.

Tip! To download new styles to your device, select **Style downlds.** (T) from the **Movie director** main view.

Create a custom muvee

1 In the **Movie Director** main view, select **Custom muvee**.

2 Select the clips you want to include in your muvee in **Video**, **Image**, **Style**, or **Music**.

After you have selected video clips and images, to define the order in which the files are played in the muvee, select **Options** > **Advanced options**. Select the file you want to move by pressing the scroll key. Then scroll to the file below which you want to place the marked file, and press the scroll key.

To cut the video clips, select **Options**> **Select contents**. See "Select content," p. 52.

In **Message** you can add an opening and closing text to a muvee.

3 Select **Create muvee**. and from the following:

Multimedia message—to optimise the length of the muvee for MMS sending.

Auto-select—to include all the selected pictures and video clips in the muvee.

Same as music—to set the muvee duration to be the same as the chosen music clip.

User defined—to define the length of the muvee.

4 Select **Options** > **Save**.

To preview the custom muvee before saving it, in the **Preview muvee** view, select **Options** > **Play**.

To create a new custom muvee by using the same style settings, select **Options** > **Recreate**.

Select content

After you select images and video clips for your muvee, you can edit the selected video clips. Select **Options** > **Advanced options** > **Options** > **Select contents**. You can select which parts of the video clip you want to include or exclude in the muvee. A slider below the video screen indicates the included, excluded, and neutralised parts with colors: green is for included, red is for excluded, and grey is for neutral parts.

To include a part of the video clip in the muvee, scroll to the part, and select **Options** > **Include**.

To exclude a part from the video clip, scroll to the part, and select **Options** > **Exclude**.

To let **Movie director** randomly include or exclude a part of the video clip, scroll to the part, and select **Options** > **Mark as neutral**.

To exclude a shot from the video clip, select **Options** > **Exclude shot**.

To let **Movie director** randomly include or exclude parts of the video clip, select **Options** > **Mark all as neutral**.

Settings

Select **Settings** to edit the following options:

Memory in use—Select where to store your muvees.

Resolution—Select the resolution of your muvees.

Default muvee name—Set a default name for the muvees.

Calendar

Shortcut: Press any key (1 – 0) in any calendar view. A meeting entry opens, and the characters you enter are added to the **Subject** field.

Tip! Regularly back up the phone information to the memory card. You can restore the information, such as calendar entries, to the phone later. See "Memory card tool," p. 13.

Create calendar entries

1 Press , and select **Calendar** > **Options** > **New entry** and from the following:

Meeting—To remind you of an appointment that has a specific date and time.

Memo—To write a general entry for a day.

Anniversary—To remind you of birthdays or special dates. Anniversary entries are repeated every year.

2 Fill in the fields. Use to move between fields.

Alarm (meetings and anniversaries)—Select **On**, and press to fill in the **Alarm time** and **Alarm date** fields. in the day view indicates an alarm.

Repeat—Press to change the entry to be repeating (is shown in the day view).

Repeat until—You can set an end date for the repeated entry.

Synchronization:

Private—after Synchronization the calendar entry can be seen only by you and it will not be shown to others with online access to view the calendar.

Public—The calendar entry is shown to others who have access to view your calendar online.

None—The calendar entry will not be copied to your PC when you synchronize.

3 To save the entry, select **Done**.

To stop a calendar alarm, select **Silence** to turn off the calendar alarm tone. The reminder text stays on the screen. Select **Stop** to end the calendar alarm. Select **Snooze** to set the alarm to snooze.

Tip! To send a calendar note to a compatible phone, select **Options** > **Send** > **Via text message**, **Via multimedia**, or **Via Bluetooth**.

Tip! You can move calendar and to-do data from many different Nokia phones to your phone or synchronize your calendar and to-do to a compatible PC using Nokia PC Suite. See the CD-ROM if supplied.

Set a calendar alarm

You can set an alarm to remind you of meetings and anniversaries.

1 Open an entry in which you want to set an alarm, and select **Alarm** > **On**.

2 Set the **Alarm time** and **Alarm date**.

3 Scroll down to **Repeat**, and press to select how often you want the alarm to be repeated.

4 Select **Done**.

To delete a calendar alarm, open the entry in which you want to delete an alarm, and select **Alarm** > **Off**.

Calendar views

Tip! Select **Options** > **Settings** to change the starting day of the week or the view that is shown when you open the calendar.

In the month view, dates that have calendar entries are marked with a small triangle at the right bottom corner. In the week view, memos and anniversaries are placed before 8 o'clock. Press * to switch between the month view, the week view, and the day view.

Icons in the day and week views:

Memo

Anniversary

There is no icon for **Meeting**.

To go to a certain date, select **Options** > **Go to date**, write the date, and select **OK**.

Press # to jump to today.

Remove calendar entries

Removing past entries in **Calendar** saves space in your phone memory.

To remove more than one event at a time, go to the month view, and select **Options** > **Delete entry** and one of the following:

Before date—Deletes all calendar entries that take place before a certain date you define.

All entries—Deletes all calendar entries.

Calendar settings

To modify the **Calendar alarm tone**, **Default view**, **Week starts on**, and **Week view title**, select **Options** > **Settings**.

Messaging

Press , and select **Messaging**. In **Messaging**, you can create, send, receive, view, edit, and organize text messages, multimedia messages, e-mail messages, and special text messages containing data. You can also receive messages and data through a Bluetooth connection, receive Web service messages, cell broadcast messages, and send service commands.

Note: Only devices that have compatible features can receive and display multimedia messages. The appearance of a message may vary depending on the receiving device.

When you open **Messaging**, you can see the **New message** function and a list of folders:

Inbox—Contains received messages except e-mail and cell broadcast messages. E-mail messages are stored in the **Mailbox**.

My folders—For organizing your messages into folders.

Mailbox—In **Mailbox** you can connect to your remote mailbox to retrieve your new e-mail messages or view your previously retrieved e-mail messages offline. See "E-mail," p. 67.

Drafts—Stores draft messages that have not been sent.

Sent—Stores the last 20 messages that have been sent excluding messages sent using a Bluetooth connection. To change the number of messages to be saved, see "Other settings," p. 69.

Outbox—A temporary storage place for messages waiting to be sent.

Reports ( )—You can request the network to send you a delivery report of the text messages and multimedia messages you have sent. Receiving a delivery report of a multimedia message that has been sent to an e-mail address might not be possible.

Tip! When you have opened any of the default folders, you can switch between the folders by pressing or .

To enter and send service requests (also known as USSD commands), such as activation commands for network services, to your service provider, select **Options** > **Service command** in the main view of **Messaging**.

Cell broadcast allows you to receive messages on various topics, such as weather or traffic conditions from

your service provider. For available topics and relevant topic numbers, contact your service provider. In the main view of **Messaging**, select **Options** > **Cell broadcast**. In the main view you can see the status of a topic, a topic number, name, and whether it has been flagged ( ) for follow-up.

Options in **Cell broadcast** are **Open**, **Subscribe**/**Unsubscribe**, **Hotmark**/**Remove hotmark**, **Topic**, **Settings**, **Help**, and **Exit**.

Cell broadcast messages cannot be received in UMTS networks. A packet data connection may prevent cell broadcast reception.

Write text

Traditional text input

ABC and **abc** indicate the selected case. **Abc** means that the first letter of the word is written in uppercase, and all other letters are automatically written in lowercase. **123** indicates number mode.

The indicator is shown on the top right of the display when you are writing text using traditional text input.

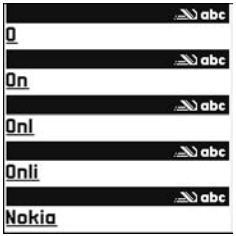
- Press a number key (**1** – **9**) repeatedly until the desired character appears. There are more characters available for a number key than are printed on the key.
- To insert a number, press and hold the number key.
- To switch between letter and number mode, press and hold **#** .
- If the next letter is located on the same key as the present one, wait until the cursor appears (or press to end the time-out period), and enter the letter.
- To erase a character, press **C** . Press and hold **C** to clear more than one character.
- The most common punctuation marks are available under **1** . Press **1** repeatedly to reach the desired punctuation mark.

  Press ***** to open a list of special characters. Use to move through the list, and press **Select** to select a character.
- To insert a space, press **0** . To move the cursor to the next line, press **0** three times.
- To switch between the different character modes, press **#** .

Predictive text input—Predictive text

You can enter any letter with a single key press. Predictive text input is based on a built-in dictionary to which you can also add new words. When the dictionary becomes full, the latest added word replaces the oldest.

1 To activate predictive text input, press , and select **Predictive text on**. This activates predictive text input for all editors in the phone. is shown on the top right of the display when you write text using predictive text input.



2 To write the desired word, press the keys **2** – **9** . Press each key only once for one letter. For example, to write 'Nokia' when the English dictionary is selected, press **6** for N, **6** for o, **5** for k, **4** for i, and **2** for a.

The word suggestion changes after each key press.

3 When you finish writing the word and it is correct, to confirm it, press , or press **0** to add a space.

If the word is not correct, press * repeatedly to view the matching words the dictionary has found one by one, or press , and select **Predictive text** > **Matches**.

If the **?** character is shown after the word, the word you intended to write is not in the dictionary. To add a word to the dictionary, select **Spell**, enter the word using traditional text input, and select **OK**. The word is added to the dictionary. When the dictionary becomes full, a new word replaces the oldest added word.

4 Start writing the next word.

Tip! To set predictive text input on or off, press # twice quickly.

Tips on predictive text input

To erase a character, press C . Press and hold C to clear more than one character.

To change between the different character modes, press # . If you press # quickly twice, predictive text input is turned off.

Tip! Predictive text input tries to guess which commonly used punctuation mark (**.,?!'**) is needed. The order and availability of the punctuation marks depend on the language of the dictionary.

To insert a number in letter mode, press and hold the desired number key.

To switch between letter and number mode, press and hold # .

The most common punctuation marks are available under **1** . Press **1** and then * repeatedly to search for the desired punctuation mark.

Press and hold * to open a list of special characters.

Press * repeatedly to view the matching words the dictionary has found one by one.

Press , select **Predictive text**, and press to select one of the following options:

Matches—To view a list of words that correspond to your key presses.

Insert word—To add a word to the dictionary by using traditional text input. When the dictionary becomes full, a new word replaces the oldest added word.

Edit word—To edit the word using traditional text input. This is available if the word is active (underlined).

Tip! When you press , the following options appear (depending on the editing mode): **Dictionary** (predictive text input), **Alpha mode** (traditional text input), **Number mode**, **Cut** (if text has been selected), **Copy** (if text has been selected), **Paste** (when text has been cut or copied first), **Insert number**, **Insert symbol**, and **Writing language:** (changes the input language for all editors in the phone).

Write compound words

Write the first half of a compound word; to confirm it, press . Write the last part of the compound word. To complete the compound word, press 0 to add a space.

Turn predictive text input off

Press , and select **Dictionary** > **Off** to turn predictive text input off for all editors in the phone.

Copy text to clipboard

1 To select letters and words, press and hold . At the same time, press or . As the selection moves, text is highlighted.

2 To copy the text to the clipboard, while still holding , select **Copy**.

3 To insert the text into a document, press and hold , and select **Paste**, or press once, and select **Paste**.

To select lines of text, press and hold . At the same time press or .

To remove the selected text from the document, press C.

Write and send messages

The appearance of a multimedia message may vary, depending on the receiving device.

Copyright protections may prevent some images, music (including ringing tones), and other content from being copied, modified, transferred or forwarded.

Tip! You can start to create a message from any application that has the option **Send**. Select a file (image or text) to be added to the message, and select **Options** > **Send**.

Before you can create a multimedia message or write an e-mail, you must have the correct connection settings in place. See "Receive MMS and e-mail settings," p. 60. and "E-mail," p. 67.

The wireless network may limit the size of MMS messages. If the inserted picture exceeds this limit, the device may make it smaller so that it can be sent by MMS.

1 Select **New message**. A list of message options opens.

Text message—to send a text message.

Multimedia message—to send a multimedia message (MMS).

E-mail—to send an e-mail. If you have not set up your e-mail account, you are prompted to do so.

2 Press ◉ to select recipients or groups from contacts, or enter the recipient's phone number or e-mail address. Press * to add a semicolon (;) that separates the recipients. You can also copy and paste the number or address from the clipboard.

Tip! Scroll to a contact, and press ◉ to mark it. You can mark several recipients at a time.

3 Press ◉ to move to the message field.

4 Write the message.

5 To add a media object to a multimedia message, select **Options** > **Insert object** > **Image**, **Sound clip**, or **Video clip**. When sound is added, the icon is shown in the navigation bar.

You cannot send video clips that are saved in the .mp4 format in a multimedia message. To change the format in which recorded videos are saved, see "Video settings," p. 42.

6 To take a new picture or record sound or video for a multimedia message, select **Insert new** > **Image**, **Sound clip**, or **Video clip**. To insert a new slide to the message, select **Slide**.

Select **Options** > **Preview** to see what the multimedia message looks like.

7 To add an attachment to an e-mail, select **Options** > **Insert** > **Image**, **Sound clip**, **Video clip** or **Note**. E-mail attachments are indicated by in the navigation bar.

Tip! To send files other than sounds and notes as attachments, open the appropriate application, and select **Send** > **Via e-mail**, if available.

8 To send the message, select **Options** > **Send**, or press .

Your device supports the sending of text messages beyond the character limit for a single message. Longer messages will be sent as a series of two or more messages. Your service provider may charge accordingly. Characters that

use accents or other marks, and characters from some language options like Chinese, take up more space limiting the number of characters that can be sent in a single message. In the navigation bar, you can see the message length indicator counting backwards. For example, 10 (2) means that you can still add 10 characters for the text to be sent as two messages.

Note: E-mail messages are automatically placed in **Outbox** before sending. If sending does not succeed, the e-mail is left in the **Outbox** with the **Failed** status.

Tip! In **Messaging** you can also create presentations and send them in a multimedia message. In the multimedia message editor view, select **Options** > **Create presentation** (shown only if **MMS creation mode** is set to **Guided** or **Free**). See "Multimedia messages," p. 66.

Tip! When you send a multimedia message to an e-mail address or a device that supports the receiving of large images, use the larger image size. If you are not sure of the receiving device, or the network does not support sending large files, it is recommended that you use a smaller image size or a sound clip that is no longer than 15 seconds. To change the setting, select **Options** > **Settings** > **Multimedia message** > **Image size** in the **Messaging** main view.

Receive MMS and e-mail settings

You may receive the settings in a text message from your network operator or service provider. See "Data and settings," p. 61.

For availability of and subscription to data services, contact your network operator or service provider. Follow the instructions given by your service provider.

Enter the MMS settings manually:

1 Select **Tools** > **Settings** > **Connection** > **Access points**, and define the settings for a multimedia messaging access point. See "Connection settings," p. 94.

2 Select **Messaging** > **Options** > **Settings** > **Multimedia message** > **Access point in use** and the access point you created to be used as the preferred connection. See also "Multimedia messages," p. 66.

Before you can send, receive, retrieve, reply to, and forward e-mail, you must do the following:

- Configure an Internet access point (IAP) correctly. See "Connection settings," p. 94.
- Define your e-mail settings correctly. See "E-mail," p. 67. You need to have a separate e-mail account. Follow the instructions given by your remote mailbox and Internet service provider (ISP).

Inbox—receive messages

Inbox icons: —unread messages in **Inbox**; —unread text message; —unread multimedia message; —data received through a Bluetooth connection.

When you receive a message, and the text **1 new message** are shown in the standby mode. Select **Show** to open the message. To open a message in **Inbox**, scroll to it, and press ⦿.

Multimedia messages

Important: Exercise caution when opening messages. Multimedia message objects may contain malicious software or otherwise be harmful to your device or PC.

You may receive a notification that you have received a multimedia message that is saved in the multimedia message centre. To start a packet data connection to retrieve the message to your phone, select **Options** > **Retrieve**.

When you open a multimedia message ( ), you may see an image and a message, and simultaneously listen to a sound through the loudspeaker (is shown if sound is included). Click the arrow in the icon to listen to the sound.

To see what kinds of media objects have been included in the multimedia message, open the message, and select **Options** > **Objects**. You can choose to save a multimedia object file in your phone or send it, for example, through a Bluetooth connection to another compatible device.

To view received multimedia presentations, select **Options** > **Play presentation**.

Copyright protections may prevent some images, music (including ringing tones), and other content from being copied, modified, transferred or forwarded.

Data and settings

Your phone can receive many kinds of text messages that contain data ( ), also called over-the-air (OTA) messages:

Configuration message—You may receive a text message service number, voice mailbox number, Internet access point settings, access point login script settings, or e-mail settings from your network operator, service provider, or company information management department in a configuration message. To save the settings, select **Options** > **Save all**.

Business card—To save the information to **Contacts**, select **Options** > **Save business card**. Certificates or sound files attached to the business card are not saved.

Ringing tone—To save the ringing tone, select **Options** > **Save**.

Operator logo—For the logo to be shown in the standby mode instead of the network operator's own identification, select **Options** > **Save**.

Calendar entry—To save the invitation, select **Options** > **Save to Calendar**.

Web message—To save the bookmark to the bookmarks list in Web, select **Options** > **Add to bookmarks**. If the message contains both access point settings and bookmarks, to save the data, select **Options** > **Save all**.

E-mail notification—Tells you how many new e-mails you have in your remote mailbox. An extended notification may list more detailed information.

Tip! If you receive a vCard file that has a picture attached, the picture is saved to contacts.

Web service messages

Web service messages ( ) are notifications (for example, news headlines) and may contain a text message or a link. For availability and subscription, contact your service provider.

My folders

In **My folders**, you can organize your messages into folders, create new folders, and rename and delete folders.

Tip! You can use texts in the templates folder to avoid rewriting messages that you send often.

Mailbox

If you select **Mailbox** and have not set up your e-mail account, you are prompted to do so. See "E-mail," p. 67. When you create a new mailbox, the name you give to the mailbox replaces **Mailbox** in the **Messaging** main view. You can have up to six mailboxes.

Open the mailbox

When you open the mailbox, you can choose whether you want to view the previously retrieved e-mail messages and e-mail headings offline or connect to the e-mail server.

When you scroll to your mailbox, and press ◉, the phone asks you if you want to **Connect to mailbox?**.

Select **Yes** to connect to your mailbox, and retrieve new e-mail headings or messages. When you view messages online, you are continuously connected to a remote mailbox using a packet data connection. See also "Connection settings," p. 94.

Select **No** to view previously retrieved e-mail messages offline. When you view e-mail messages offline, your phone is not connected to the remote mailbox.

Retrieve e-mail messages

If you are offline, select **Options** > **Connect** to start a connection to a remote mailbox.

Important: Exercise caution when opening messages. E-mail messages may contain malicious software or otherwise be harmful to your device or PC.

1 When you have an open connection to a remote mailbox, select **Options** > **Retrieve e-mail**.

New—to retrieve all new e-mail messages to your phone.

Selected—to retrieve only the e-mail messages that have been marked.

All—to retrieve all messages from the mailbox.

To stop retrieving messages, select **Cancel**.

2 After you have retrieved the e-mail messages, you can continue viewing them online, or select **Options** > **Disconnect** to close the connection and view the e-mail messages offline.

E-mail status icons:

New e-mail (offline or online mode): the content has not been retrieved to your phone.

New e-mail: the content has been retrieved to your phone.

The e-mail message has been read.

The e-mail heading has been read and the message content has been deleted from the phone.

3 To open an e-mail message, press ⦿. If the e-mail message has not been retrieved (arrow in the icon is pointing outwards) and you are offline, you are asked if you want to retrieve this message from the mailbox.

To view e-mail attachments, open a message that has the attachment indicator, and select **Options** > **Attachments**. If the attachment has a dimmed indicator, it has not been retrieved to the phone; select **Options** > **Retrieve**. In the **Attachments** view, you can retrieve, open, save, or remove attachments. You can also send attachments using a Bluetooth connection.

Tip! If your mailbox uses the IMAP4 protocol, you can define how many messages to retrieve, and whether to retrieve the attachments. With the POP3 protocol, the options are **Headers only**, **Partially (kB)**, or **Msgs. & attachs.**.

Retrieve e-mail messages automatically

To retrieve messages automatically, select **Options** > **E-mail settings** > **Automatic retrieval** > **Header retrieval**. Select **Always on**, or **Only in home net.**, and define when, and how often, the messages are retrieved.

Retrieving e-mail messages automatically may increase your call costs due to the data traffic.

Delete e-mail messages

To delete the contents of an e-mail message from the phone while still retaining it in the remote mailbox, select **Options** > **Delete**. In **Delete msg. from:**, select **Phone only**.

The phone mirrors the e-mail headings in the remote mailbox. Although you delete the message content, the e-mail heading stays in your phone. If you want to remove the heading as well, you must first delete the e-mail message from your remote mailbox, and then make a connection from your phone to the remote mailbox again to update the status.

Tip! To copy an e-mail from the remote mailbox to a folder under **My folders**, select **Options** > **Copy to folder**, a folder from the list, and **OK**.

To delete an e-mail from the phone and the remote mailbox, select **Options** > **Delete**. In **Delete msg. from:**, select **Phone and server**.

If you are offline, the e-mail is deleted first from your phone. During the next connection to the remote mailbox, it is automatically deleted from the remote mailbox. If you are using the POP3 protocol, messages marked to be deleted are removed only after you have closed the connection to the remote mailbox.

To cancel deleting an e-mail from the phone and server, scroll to an e-mail that has been marked to be deleted during the next connection ( ), and select **Options** > **Undelete**.

Disconnect from the mailbox

When you are online, select **Options** > **Disconnect** to end the packet data connection to the remote mailbox.

Tip! You can also leave your mailbox connection open and the new e-mails (**Headers only** as default) will be retrieved from the remote mailbox to your phone automatically (only if the IMAP IDLE function is supported by your server). To leave the messaging application open in the background, press twice. Leaving the connection open may increase your call costs due to the data traffic.

View e-mail messages when offline

When you open **Mailbox** the next time and you want to view and read the e-mail messages offline, answer **No** to the **Connect to mailbox?** query. You can read the previously retrieved e-mail headings, the retrieved e-mail messages, or both. You can also write new, reply to, or forward e-mail to be sent the next time you connect to the mailbox.

Outbox—messages waiting to be sent

Outbox is a temporary storage place for messages waiting to be sent.

Status of the messages in **Outbox** are:

Sending—A connection is being made and the message is being sent.

Waiting/**Queued**—The message will be sent when previous messages of a similar type have been sent.

Resend at %U (time)—The phone will try to send the message again after a time-out period. Select **Send** to restart the sending immediately.

Deferred—You can set documents to be on hold while they are in **Outbox**. Scroll to a message that is being sent, and select **Options** > **Defer sending**.

Failed—The maximum number of sending attempts has been reached. Sending has failed. If you were trying to send a text message, open the message, and check that the Sending options are correct.

Example: Messages are placed in the outbox, for example, when your phone is outside network coverage. You can also schedule e-mail messages to be sent the next time you connect to your remote mailbox.

View messages on a SIM card

Before you can view SIM messages, you need to copy them to a folder in your phone.

1 In the **Messaging** main view, select **Options** > **SIM messages**.

2 Select **Options** > **Mark/Unmark** > **Mark** or **Mark all** to mark messages.

3 Select **Options** > **Copy**. A list of folders opens.

4 Select a folder and **OK** to start copying. Open the folder to view the messages.

Messaging settings

Text messages

Select **Messaging** > **Options** > **Settings** > **Text message**.

Message centres—Lists all the text message centres that have been defined.

Msg. centre in use—Select which message centre is used for delivering text messages.

Receive report ( )—To request the network to send delivery reports on your messages. When set to **No**, only the **Sent** status is shown in the log. See "Log," p. 24.

Message validity—If the recipient of a message cannot be reached within the validity period, the message is removed from the text message centre. The network must support this feature. **Maximum time** is the maximum amount of time allowed by the network.

Message sent as—Change this option only if you are sure that your message centre is able to convert text messages into these other formats. Contact your network operator.

Preferred connection—You can send text messages through the normal GSM network or through packet data, if supported by the network. See "Connection settings," p. 94.

Reply via same ctr. (T)—Choose **Yes**, if you want the reply message to be sent using the same text message centre number.

Add a new text message centre

1 Select **Message centres** > **Options** > **New msg. centre**.

2 Press ⦿, write a name for the message centre, and select **OK**.

3 Press ◉ and ⦿, and write the number of the text message centre. You receive the number from your service provider.

4 Select **OK**.

5 To use the new settings, go back to the settings view. Scroll to **Msg. centre in use**, and select the new message centre.

Multimedia messages

Select **Messaging** > **Options** > **Settings** > **Multimedia message**.

Image size—Define the size of the image in a multimedia message. The options are **Original** (shown only when the **MMS creation mode** is set to **Guided** or **Free**), **Small**, and **Large**. Select **Original** to increase the size of the multimedia message.

MMS creation mode—If you select **Guided**, the phone informs you if you try to send a message that may not be supported by the recipient. If you select **Restricted**, the phone prevents you from sending messages that are not supported.

Access point in use (**Must be defined**)—Select which access point is used as the preferred connection for the multimedia message centre.

Multimedia retrieval—Select how you want to receive multimedia messages. To receive multimedia messages automatically in your home network, select **Aut. in home network**. Outside your home network, you receive a notification that you have received a multimedia message that is saved in the multimedia message centre. You can select if you want to retrieve the message to your phone.

When you are outside your home network, sending and receiving multimedia messages may cost you more.

If you select **Multimedia retrieval** > **Always automatic**, your phone automatically makes an active packet data connection to retrieve the message both in and outside your home network.

Allow anon. messages—Select **No** if you want to reject messages from an anonymous sender.

Receive adverts—Define whether you want to receive multimedia message advertisements.

Receive report (Ŧ)—Select **Yes** if you want the status of the sent message to be shown in the log. Receiving a delivery report of a multimedia message that has been sent to an e-mail address might not be possible.

Deny report sending—Select **Yes** if you do not want your phone to send delivery reports of received multimedia messages.

Message validity—If the recipient of a message cannot be reached within the validity period, the message is removed from the multimedia messaging centre. The network must support this feature. **Maximum time** is the maximum amount of time allowed by the network.

Tip! You may also obtain the multimedia and e-mail settings from your service provider through a configuration message. Contact your service provider for more information. See "Data and settings," p. 61.

E-mail

Select **Messaging** > **Options** > **Settings** > **E-mail**, or in the mailbox main view, select **Options** > **E-mail settings**, and select from the following:

Mailbox in use—Select which mailbox you want to use for sending e-mail.

Mailboxes—Opens a list of mailboxes that have been defined. If no mailboxes have been defined, you are prompted to do so. Select a mailbox to change the following settings: **Mailbox settings**, **User settings**, and **Automatic retrieval**.

Mailbox settings:

Mailbox name—Enter a descriptive name for the mailbox.

Access point in use (**Must be defined**)—Choose an Internet access point (IAP) for the mailbox. See "Connection settings," p. 94.

My e-mail address (**Must be defined**)—Enter the e-mail address given to you by your service provider. Replies to your messages are sent to this address.

Outgoing mail server (**Must be defined**)—Enter the IP address or host name of the mail server that sends your e-mail. You may only be able to use the outgoing server of your network operator. Contact your service provider for more information.

User name—Enter your user name, given to you by your service provider.

Password:—Enter your password. If you leave this field blank, you are prompted for the password when you try to connect to your remote mailbox.

Incoming mail server (**Must be defined**)—Enter the IP address or host name of the mail server that receives your e-mail.

Mailbox type:—Defines the e-mail protocol that your remote mailbox service provider recommends. The options are **POP3** and **IMAP4**. This setting can be selected only once and cannot be changed if you have saved or exited from the mailbox settings. If you are using the POP3 protocol, e-mail messages are not updated automatically in online mode. To see the latest e-mail messages, you must disconnect and make a new connection to your mailbox.

Security (ports)—Used with the POP3, IMAP4, and SMTP protocols to secure the connection to the remote mailbox.

APOP secure login (not shown if IMAP4 is selected for **Mailbox type**)—Used with the POP3 protocol to encrypt the sending of passwords to the remote e-mail server while connecting to the mailbox.

User settings:

Send message—Define how e-mail is sent from your phone. Select **Immediately** for the device to connect to the mailbox when you select **Send message**. If you select **When conn. avail.**, e-mail is sent when the connection to the remote mailbox is available.

E-mails to retrieve (not shown if the e-mail protocol is set to POP3)—Define how many new e-mails are retrieved to the mailbox.

Retrieve (not shown if the e-mail protocol is set to IMAP4)—Define which parts of the e-mails are retrieved: **Headers only**, **Partially (kB)**, or **Msgs. & attachs.**

Retrieve attachments (not shown if the e-mail protocol is set to POP3)—Choose whether you want to retrieve e-mail with or without attachments.

Subscribed folders (not shown if the e-mail protocol is set to POP3)—You can subscribe to other folders in the remote mailbox and retrieve content from those folders.

Send copy to self—Select **Yes** to save a copy of the e-mail to your remote mailbox and to the address defined in **My e-mail address**.

Include signature—Select **Yes** if you want to attach a signature to your e-mail messages.

My name—Enter your own name here. Your name replaces your e-mail address in the recipient's phone when the recipient's phone supports this function.

Automatic retrieval:

Header retrieval—When this function is on, messages are retrieved automatically. You can define when, and how often, the messages are retrieved.

Activating **Header retrieval** may increase your call costs due to the data traffic.

Web service messages

Select **Messaging** > **Options** > **Settings** > **Service message**. Choose whether you want to receive service messages. If you want to set the phone to automatically activate the browser and start a network connection to retrieve content when the phone receives a service message, select **Download messages** > **Automatically**.

Cell broadcast

Check the available topics and related topic numbers with your service provider, and select **Messaging** > **Options** > **Settings** > **Cell broadcast** to change the settings.

Reception—Choose whether you want to receive cell broadcast messages.

Language—**All** allows you to receive cell broadcast messages in all supported languages. **Selected** allows you to choose in which languages you wish to receive cell broadcast messages. If you cannot find the desired language, select **Other**.

Topic detection—If you have set **Topic detection** > **On**, the phone automatically searches for new topic numbers, and saves the new numbers without a name to the topic list. Select **Off** if you do not want to save new topic numbers automatically.

Other settings

Select **Messaging** > **Options** > **Settings** > **Other**.

Save sent messages—Choose if you want to save a copy of every text message, multimedia message, or e-mail that you have sent to the **Sent** folder.

No. of saved msgs.—Define how many sent messages are saved to the **Sent** folder at a time. The default limit is 20 messages. When the limit is reached, the oldest message is deleted.

Memory in use—Choose the memory where you want to save your messages: **Phone memory** or **Memory card**.

Tip! If **Memory card** is selected, activate the offline profile before opening the memory card slot door or removing the memory card. When the memory card is not available, messages are saved in the phone memory.

New e-mail alerts—Choose whether you want to receive the new e-mail indications, a tone or a note, when new mail is received to the mailbox.

Web

Various service providers maintain pages specifically designed for mobile devices. To access these pages, press , and select **Web**. These pages use the wireless markup language (WML), extensible hypertext markup language (XHTML), or hypertext markup language (HTML).

Check the availability of services, pricing, and tariffs with your network operator or service provider. Service providers will also give you instructions on how to use their services.

Shortcut: To start a connection, press and hold **0** in the standby mode.

Access the Web

- Save the settings that are needed to access the Web page that you want to use. See the sections "Receive browser settings," p. 70, or "Enter the settings manually," p. 70.
- Make a connection to the Web. See "Make a connection," p. 71.
- Start browsing the pages. See "Browse," p. 72.
- End the connection to the Web. See "End a connection," p. 74.

Receive browser settings

Tip! Settings may be available on the Web site of a network operator or service provider.

You may receive Web service settings in a special text message from the network operator or service provider that offers the Web page. See "Data and settings," p. 61. For more information, contact your network operator or service provider.

Enter the settings manually

Follow the instructions given to you by your service provider.

1 Press and select **Tools** > **Settings** > **Connection** > **Access points**, and define the settings for an access point. See "Connection settings," p. 94.

2 Select **Web** > **Options** > **Bookmark manager** > **Add bookmark**. Write a name for the bookmark and the address of the page defined for the current access point.

3 To set the created access point as the default access point in **Web**, select **Web** > **Options** > **Settings** > **Access point**.

Bookmarks view

Glossary: A bookmark consists of an Internet address (mandatory), bookmark title, access point, and if the Web page requires, a user name and password.

Options in the bookmarks view are **Open**/**Download**, **Bookmark manager**, **Mark/Unmark**, **Navigation options**, **Tools**, **Advanced options**, **Send**, **Find bookmark**, **Details**, **Settings**, **Help**, and **Exit**.

Your device may have some bookmarks loaded for sites not affiliated with Nokia. Nokia does not warrant or endorse these sites. If you choose to access them, you should take the same precautions, for security or content, as you would with any Internet site.

Icons in the bookmark view:

The starting page defined for the default access point. If you use another default access point for browsing, the starting page is changed accordingly.

The automatic bookmarks folder contains bookmarks ( ) that are collected automatically when you browse pages. The bookmarks in this folder are automatically organized according to domain.

Any bookmark showing the title or Internet address of the bookmark.

Add bookmarks manually

1 In the bookmarks view, select **Options** > **Bookmark manager** > **Add bookmark**.

2 Fill in the fields. Only the URL address must be defined. The default access point is assigned to the bookmark if no other one is selected. Press * to enter special characters such as **/**, **.**, **:**, and **@**. Press C to clear characters.

3 Select **Options** > **Save** to save the bookmark.

Send bookmarks

Scroll to a bookmark, and select **Options** > **Send** > **Via text message**. Press to send. It is possible to send more than one bookmark at the same time.

Make a connection

Once you have stored all the required connection settings, you can access the pages.

1 Select a bookmark or enter the address in the field ( ). When you enter the address, matching bookmarks are shown above the field. Press to select a matching bookmark.

2 Press to start to download the page.

Connection security

If the security indicator is displayed during a connection, the data transmission between the device and the Internet gateway or server is encrypted.

The security icon does not indicate that the data transmission between the gateway and the content server (or place where the requested resource is stored) is secure. The service provider secures the data transmission between the gateway and the content server.

Select **Options** > **Details** > **Security** to view details about the connection, encryptions status, and information about server and user authentication.

Security features may be required for some services, such as banking services. For such connections you need security certificates. For more information, contact your service provider. See also "Certificate management," p. 98.

Browse

Important: Use only services that you trust and that offer adequate security and protection against harmful software.

Options when browsing (depending on the page you are viewing) are **Open**, **Accept**, **Remove file**, **Open in viewer**, **Service options**, **Bookmarks**, **Save as bookmark**, **Navigation options**, **Tools**, **Advanced options**, **Show images**, **Send bookmark**, **Find**, **Details**, **Settings**, **Help**, and **Exit**.

On a browser page, new links appear underlined in blue and previously visited links in purple. Images that act as links have a blue border around them.

To open a link, to check boxes, and make selections, press ⦿.

Shortcut: Use # to jump to the end of a page and * to the beginning of a page.

To go to the previous page while browsing, select **Back**. If **Back** is not available, select **Options** > **Navigation options** > **History** to view a chronological list of the pages you have visited during a browsing session. The history list is cleared each time a session is closed.

To retrieve the latest content from the server, select **Options** > **Navigation options** > **Reload**.

To save a bookmark, select **Options** > **Save as bookmark**.

Tip! To access the bookmarks view while browsing, press and hold down ⦿. To return to the browser view again, select **Options** > **Back to page**.

To save a page while browsing, select **Options** > **Advanced options** > **Save page**. You can save pages either to the phone memory or on a memory card, and browse them when offline. To access the pages later, press ◔ in the bookmarks view to open the **Saved pages** view.

To enter a new URL address, select **Options** > **Navigation options** > **Go to web address**.

To open a sublist of commands or actions for the currently open page, select **Options** > **Service options**.

You can download files that cannot be shown on the browser page, such as ringing tones, images, operator logos, themes, and video clips. Downloaded items are handled by the respective applications in your phone, for example, a downloaded image is saved in **Gallery**.

Copyright protections may prevent some images, music (including ringing tones), and other content from being copied, modified, transferred or forwarded.

Important: Only install and use applications and other software from sources that offer adequate security and protection against harmful software.

Tip! Your browser collects bookmarks automatically while you are browsing Web pages. The bookmarks are stored to the automatic bookmarks folder ( ) and automatically organized according to domain. See also "Web settings," p. 74.

View saved pages

If you regularly browse pages containing information that does not change very often, you can save and browse them when offline. In the saved pages view you can also create folders to store your saved browser pages.

Options in the saved pages view are **Open**, **Back to page**, **Reload**, **Saved pages**, **Mark/Unmark**, **Navigation options**, **Advanced options**, **Details**, **Settings**, **Help**, and **Exit**.

To open the saved pages view, press ◔ in the bookmarks view. In the saved pages view, press ◉ to open a saved page ( ).

To save a page while browsing, select **Options** > **Advanced options** > **Save page**.

To start a connection to the browser service and to download the latest version of the page, select **Options** > **Reload**. The phone stays online after you reload the page.

Download and purchase items

You can download items such as ringing tones, images, operator logos, themes, and video clips. These items can be provided free, or you can purchase them. Downloaded items are handled by the respective applications in your phone, for example, a downloaded photo can be saved in **Gallery**.

Important: Only install and use applications and other software from sources that offer adequate security and protection against harmful software.

1 To download the item, scroll to the link, and press ⦿.

2 Select the appropriate option to purchase the item, for example, 'Buy'.

3 Carefully read all the information provided.

To continue the download, select **Accept**. To cancel the download, select **Cancel**.

Copyright protections may prevent some images, music (including ringing tones), and other content from being copied, modified, transferred or forwarded.

End a connection

Select **Options** > **Advanced options** > **Disconnect** to end the connection and view the browser page offline, or **Options** > **Exit** to end the connection and close the browser.

Empty the cache

The information or services you have accessed are stored in the cache memory of the phone.

A cache is a memory location that is used to store data temporarily. If you have tried to access or have accessed confidential information requiring passwords, empty the cache after each use. The information or services you have accessed are stored in the cache. To empty the cache, select **Options** > **Advanced options** > **Clear cache**.

Web settings

Select **Options** > **Settings** and from the following:

Access point—To change the default access point, press ⦿ to open a list of available access points. See "Connection settings," p. 94.

Show images—To select if you want to load images while browsing or not. If you select **No**, to load images later during browsing, select **Options** > **Show images**.

Font size—To choose the text size.

Default encoding—If text characters are not shown correctly, you may choose another encoding according to language.

Automatic bookmarks—To disable automatic bookmark collecting, select **Off**. If you want to continue collecting automatic bookmarks but hide the folder from the bookmarks view, select **Hide folder**.

Screen size—To select what is shown when you are browsing. Select **Select. keys only** or **Full screen**.

Homepage—To define the home page.

Search page—To define a Web page that is downloaded when you select **Navigation options** > **Open search page** in the bookmarks view, or when browsing.

Volume—If you want the browser to play sounds embedded on Web pages, select a volume level.

Rendering—If you want the page layout shown as accurately as possible when in **Small screen** mode, select **By quality**. If you do not want external cascading style sheets to be downloaded, select **By speed**.

Cookies—To enable or disable the receiving and sending of cookies.

Glossary: Cookies are a means of content providers to identify users and their preferences for frequently used content.

Java/ECMA script—To enable or disable the use of scripts.

Security warnings—To hide or show security notifications.

Serial no. sending—To enable or disable serial number sending. Some service providers may require that you enable this function before Web browsing is possible.

Confirm touch tones—Choose whether you want to confirm before the phone sends DTMF tones during a voice call. See also "Options during a voice call," p. 23.

Office

Calculator

To add, substract, multiply, divide, calculate square roots and percentages, press , and select **Office** > **Calculator**.

Note: This calculator has limited accuracy and is designed for simple calculations.

To save a number in the memory (indicated by **M**), select **Options** > **Memory** > **Save**. To retrieve a number in memory, select **Options** > **Memory** > **Recall**. To clear a number in memory, select **Options** > **Memory** > **Clear**.

Calculate percentages

1 Enter a number for which you want to calculate a percentage.
2 Select , , , or .
3 Enter the percentage.
4 Select .

Converter

To convert measures such as **Length** from one unit (**Yards**) to another (**Metres**), press , and select **Office** > **Converter**.

Options in **Converter** are **Select unit**/**Change currency**, **Conversion type**, **Currency rates**, **Help**, and **Exit**.

Note that **Converter** has limited accuracy, and rounding errors may occur.

1 Scroll to the **Type** field, and press to open a list of measures. Scroll to the measure you want to use, and select **OK**.
2 Scroll to the first **Unit** field, and press . Select the unit from which you want to convert and **OK**. Scroll to the next **Unit** field, and select the unit to which you want to convert.
3 Scroll to the first **Amount** field, and enter the value you want to convert. The other **Amount** field changes automatically to show the converted value.

Press # to add a decimal and * for the **+**, **-** (for temperature), and **E** (exponent) symbols.

Tip! To change the conversion order, enter the value in the second **Amount** field. The result is shown in the first **Amount** field.

Set base currency and exchange rates

Before you can make currency conversions, you need to choose a base currency and add exchange rates. The rate

of the base currency is always 1. The base currency determines the conversion rates of the other currencies.

1 Select **Converter** > **Options** > **Currency rates**. A list of currencies opens, and you can see the current base currency at the top.

   Tip! To rename a currency, go to the currency rates view, scroll to the currency, and select **Options** > **Rename currency**.

2 To change the base currency, scroll to the currency, and select **Options** > **Set as base curr.**.

3 Add exchange rates. Scroll to the currency, and enter a new rate, that is, how many units of the currency equal one unit of the base currency you have selected.

After you have inserted all the necessary exchange rates, you can make currency conversions.

Note: When you change base currency, you must enter the new rates because all previously set exchange rates are set to zero.

To-do

Create a task list

Press , and select **Office** > **To-do** to write notes and maintain a task list.

To add a note, press any key to start to write the task in the **Subject** field.

To set the due date for the task, scroll to the **Due date** field, and enter a date.

To set the priority for the **To-do** note, scroll to the **Priority** field, and press to select the priority. The priority icons are ! (**High**) and ↓ (**Low**). There is no icon for **Normal**.

To mark a task as completed, scroll to it in the **To-do** list, and select **Options** > **Mark as done**.

To restore a task, scroll to it in the **To-do** list, and select **Options** > **Mark as not done**.

Notes

Press , and select **Office** > **Notes** to write notes. You can send notes to other compatible devices and save plain text files (.txt format) that you receive to **Notes**.

Recorder

Press , and select **Office** > **Recorder** to record telephone conversations and voice memos. If you are recording a telephone conversation, both parties hear a tone every 5 seconds during recording.

Connectivity

Bluetooth connection

You can connect wirelessly to other compatible devices with Bluetooth technology. Compatible devices may include mobile phones, computers, and enhancements such as headsets and car kits. You can use Bluetooth technology to send images, video clips, music and sound clips, and notes; to connect wirelessly to your compatible PC to, for example, transfer files; or to connect to a compatible printer to print images with **Image print**. See "Image print," p. 48.

Since devices with Bluetooth technology communicate using radio waves, your device and the other device do not need to be in direct line-of-sight. The two devices only need to be within 10 metres of each other, although the connection may be subject to interference from obstructions such as walls or from other electronic devices.

This device is compliant with Bluetooth Specification 1.2 supporting the following profiles: Basic Printing Profile, Generic Access Profile, Serial Port Profile, Dial-up Networking Profile, Headset Profile, Handsfree Profile, Generic Object Exchange Profile, Object Push Profile, File Transfer Profile, Basic Imaging Profile, and Human Interface Device Profile. To ensure interoperability between other devices supporting Bluetooth technology, use Nokia approved enhancements for this model. Check with the manufacturers of other devices to determine their compatibility with this device.

Glossary: A profile corresponds to a service or a function, and defines how different devices connect. For example the Handsfree Profile is used between the handsfree device and the phone. For devices to be compatible, they must support the same profiles.

There may be restrictions on using Bluetooth technology in some locations. Check with your local authorities or service provider.

Features using Bluetooth technology, or allowing such features to run in the background while using other features, increase the demand on battery power and reduce the battery life.

When the device is locked, you cannot use the Bluetooth connection. See "Security," p. 96 for more information on locking the device.

Bluetooth connection settings

Press , and select **Connect.** > **Bluetooth**. When you open the application for the first time, you are asked to define a name for your device.

Select from the following:

Bluetooth—Set to **On** or **Off**. To connect wirelessly to another compatible device, first set Bluetooth **On**, and then establish a connection.

My phone's visibility—To allow your device to be found by other devices with Bluetooth technology, select **Shown to all**. To hide it from other devices, select **Hidden**.

My phone's name—Edit the name of your device. After you have set a Bluetooth connection and changed **My phone's visibility** to **Shown to all**, your device and this name can be seen by other users with devices using Bluetooth technology.

Security tips

When you are not using Bluetooth, set Bluetooth **Off**, or select **My phone's visibility** > **Hidden**.

Do not pair with an unknown device.

Send data using a Bluetooth connection

There can be several active Bluetooth connections at a time. For example, if you are connected to a headset, you can also transfer files to another compatible device at the same time.

Bluetooth connection indicators

- When is shown in the standby mode, a Bluetooth connection is active.
- When is blinking, your device is trying to connect to the other device.
- When is shown continuously, the Bluetooth connection is active.

Tip! To send text using a Bluetooth connection (instead of text messages), open **Notes**, write the text, and select **Options** > **Send** > **Via Bluetooth**.

1 Open an application where the item you want to send is stored. For example, to send an image to another compatible device, open **Gallery**.

2 Select the item, for example an image, and select **Options** > **Send** > **Via Bluetooth**. Devices with Bluetooth technology that are within range start to appear on the display one by one. You can see a device icon, the name of the device, the device type, or a short name.

Tip! If you have searched for devices earlier, a list of the devices that were found previously is shown first. To start a new search, select **More devices**. If you switch off the phone, the list is cleared.

Device icons:

—Computer; —Phone; —Audio or video; —Headset; —Other.

To interrupt the search, press **Stop**. The device list freezes.

3 Select the device with which you want to connect.

4 If the other device requires pairing before data can be transmitted, a tone sounds, and you are asked to enter a passcode. See "Pair devices," p. 80.

5 When the connection has been established, **Sending data** is shown.

The **Sent** folder in **Messaging** does not store messages sent using a Bluetooth connection.

Tip! When searching for devices, some devices may show only the unique addresses (device addresses). To find the unique address of your phone, enter the code ***#2820#** in the standby mode.

Pair devices

Glossary: Pairing means authentication. The users of the two devices with Bluetooth technology should agree on a common passcode, and use the same passcode for both devices in order to pair them. Devices that do not have a user interface have a factory-set passcode.

In the **Bluetooth** main view, press ◔ to open the paired devices view ( ).

Before pairing, create your own passcode (1—16 digits), and agree with the owner of the other device to use the same code. The passcode is used only once.

To pair with a device, select **Options** > **New paired device**. Devices with Bluetooth technology that are within range start to appear on the display one by one. Select the device, and enter the passcode. The same passcode must be entered on the other device as well. After pairing, the device is saved to the paired devices view.

Paired devices are indicated by in the device search.

Tip! To define a short name (nickname or alias) for a paired device, scroll to the device, and select **Options** > **Assign short name** in the paired devices view. This name helps you to recognize a certain device during device search or when a device requests a connection.

To set a device to be authorized or unauthorized, scroll to a device, and select from the following options:

Set as authorized—Connections between your device and this device can be made without your knowledge. No separate acceptance or authorization is needed. Use this status for your own devices, such as your compatible headset or PC, or devices that belong to someone you trust. indicates authorized devices in the paired devices view.

Set as unauthorized—Connection requests from this device must be accepted separately every time.

To cancel a pairing, scroll to the device, and select **Options** > **Delete**. If you want to cancel all pairings, select **Options** > **Delete all**.

Tip! If you are currently connected to a device and delete the pairing with that device, pairing is removed immediately and the connection will be switched off.

Receive data using a Bluetooth connection

When you receive data using a Bluetooth connection, a tone sounds, and you are asked if you want to accept the message. If you accept, is shown, and the item is placed in the **Inbox** folder in **Messaging**. Messages received using a Bluetooth connection are indicated by . See "Inbox—receive messages," p. 61.

Switch off Bluetooth connectivity

To switch off Bluetooth connectivity, select **Bluetooth** > **Off**.

PC connections

You can use your device with a variety of PC connectivity and data communications applications. With Nokia PC Suite you can, for example, synchronize contacts, calendar and To-do notes, and transfer images between your device and a compatible PC.

Always create the connection from the PC to synchronize with your device.

For further information on how to install Nokia PC Suite (compatible with Windows 2000 and Windows XP), see the User Guide for Nokia PC Suite and the Nokia PC Suite help in the 'Install' section on the CD-ROM.

CD-ROM

The CD-ROM should launch after you have inserted it into the CD-ROM drive of a compatible PC. If not, proceed as follows: Open Windows Explorer, right-click the CD-ROM drive where you inserted the CD-ROM, and select Autoplay.

Your device as a modem

You can use your device as a modem to send and receive e-mail, or to connect to the Internet with a compatible PC by using a Bluetooth connection or a data cable. Detailed installation instructions can be found in the User Guide for Nokia PC Suite in Modem options on the CD-ROM.

Tip! When using Nokia PC Suite for the first time, to connect your device to a compatible PC and to use Nokia PC Suite, use the Get Connected wizard available in Nokia PC Suite. See the CD-ROM if supplied.

Connection manager

You may have multiple data connections active at the same time when you are using your device in GSM and UMTS networks. Press , and select **Connect.** > **Conn. mgr.** to view the status of multiple data connections, view details on the amount of data sent and received, and end connections. When you open **Conn. mgr.**, you can see the following:

- Open data connections: data calls ( ) and packet data connections ( ) or ( ).
- The status of each connection
- The amount of data uploaded and downloaded for each connection (shown for packet data connections only)
- The duration of each connection (shown for data calls only)

Note: The actual time invoiced for calls by your service provider may vary, depending on network features, rounding off for billing, and so forth.

To end a connection, scroll to a connection, and select **Options** > **Disconnect**.

To close all currently open connections, select **Options** > **Disconnect all**.

View data connection details

Options in the **Conn. mgr.** main view when there are one or more connections are **Details**, **Disconnect**, **Disconnect all**, **Help**, and **Exit**.

To view the details of a connection, scroll to a connection, and select **Options** > **Details**.

Name—The name of the Internet access point (IAP) in use, or the modem connection name if the connection is a dial-up connection.

Bearer—The type of data connection: **Data call**, **High sp. GSM**, or **Packet data**.

Status—The current status of the connection: **Connecting**, **Conn. (inact.)**, **Conn. (active)**, **On hold**, **Disconnctng.**, or **Disconnected**.

Received—The amount of data, in bytes, received to your device.

Sent—The amount of data, in bytes, sent from your device.

Duration—The length of time that the connection has been open.

Speed—The current speed of both sending and receiving data in kilobytes per second.

Dial-up—The dial-up number used.

Name—Access point name used.

Shared (not shown if the connection is not shared)—The number of applications using the same connection.

Remote synchronization

Press , and select **Connect.** > **Sync**. **Sync** enables you to synchronize your notes, calendar, and contacts with various calendar and address book applications on a compatible computer or on the Internet.

The synchronization application uses SyncML technology for synchronization. For information on SyncML compatibility, contact the supplier of the calendar or address book application you want to synchronize your phone data with.

You may receive syncronization settings in a special text message. See "Data and settings," p. 61.

Create a new synchronization profile

Options in the **Sync** main view are **Synchronize**, **New sync profile**, **Edit sync profile**, **Delete**, **View log**, **Set as default**, **Help**, and **Exit**.

1 If no profiles have been defined, your device asks if you want to create a new profile. Select **Yes**.

To create a new profile in addition to existing ones, select **Options** > **New sync profile**. Choose whether you want to use the default setting values or copy the values from an existing profile to be used as the basis for the new profile.

2 Define the following:

Sync profile name—Write a descriptive name for the profile.

Data bearer—Select the connection type: **Web**, or **Bluetooth**.

Access point (shown only if **Data bearer** is set to **Web**)—Select an access point to use for the data connection.

Host address—The IP address of the host server. Contact your service provider or system administrator for the correct values.

Port (shown only if **Data bearer** is set to **Web**)—Contact your service provider or system administrator for the correct values.

User name—Your user ID for the synchronization server. Contact your service provider or system administrator for your correct ID.

Password—Write your password. Contact your service provider or system administrator for the correct value.

Allow sync requests—Select **Yes** if you want to allow the server to start a synchronization.

Accept all sync reqs.—Select **No** if you want your device to ask you before a synchronization initialized by the server is started.

Network authentic. (shown only if **Data bearer** is set to **Web**)—Select **Yes** to enter a network user name and password. Press ◉ to view the user name and password fields.

Press ◉ to select **Contacts**, **Calendar**, or **Notes**.

- Select **Yes** if you want to synchronize the selected database.

- In **Remote database**, enter a correct path to the remote calendar, address book, or notes database on the server.
- Select **synchronization type**: **Normal** (two-way synchronization), **To server only**, or **To phone only**.

3 Select **Back** to save the settings and return to the main view.

Synchronize data

In the **Sync** main view, you can see the different synchronization profiles and the kind of data to be synchronized.

1 Select a synchronization profile and **Options** > **Synchronize**. The status of the synchronization is shown at the bottom of the screen.

To cancel synchronization before it finishes, select **Cancel**.

2 You are notified when the synchronization is complete. After synchronization is complete, select **Options** > **View log** to open a log file showing the synchronization status (**Complete** or **Incomplete**) and how many calendar or contact entries, or notes have been added, updated, deleted, or discarded (not synchronized) in your device or on the server.

Device manager

Press , and select **Connect.** > **Dev. mgr.**. You may receive server profiles and different configuration settings from your network operator, service provider, or company information management department. These configuration settings may include access point settings for data connections and other settings used by different applications in your device.

To connect to a server and receive configuration settings for your device, scroll to a profile, and select **Options** > **Start configuration**.

To allow or deny receiving of configuration settings from service providers, select **Options** > **Enable config.** or **Disable config.**.

Server profile settings

Contact your service provider for the correct settings.

Server name—Enter a name for the configuration server.

Server ID—Enter the unique ID to identify the configuration server.

Server password—Enter a password to identify your device to the server.

Access point—Select an access point to be used when connecting to the server.

Host address—Enter the URL address of the server.

Port—Enter the port number of the server.

User name and **Password**—Enter your user name and password.

Allow configuration—To receive configuration settings from the server, select **Yes**.

Auto-accept all reqs.—If you want your device to ask for confirmation before accepting a configuration from the server, select **No**.

My own

Go to—add shortcuts

Default shortcuts:

Opens **Calendar**

Opens **Inbox**

Opens **Notes**

To store shortcuts (links to your favorite images, notes, bookmarks, and so on), press , and select **My own** > **Go to**. Shortcuts are added only from the individual applications, for example, **Gallery**. Not all applications have this function.

1 Select an item from an application to which you want to add a shortcut.

2 Select **Add to 'Go to'**. A shortcut in **Go to** is automatically updated if you move the item to which it is pointing (for example, from one folder to another).

To change the identifier in the lower left corner of the shortcut icon, select **Options** > **Shortcut icon**.

Delete a shortcut

Select the shortcut, and press . The default shortcuts **Notes**, **Calendar**, and **Inbox** cannot be deleted.

When you remove an application or a document which has a shortcut in **Go to**, the shortcut icon of the removed item is dimmed in the **Go to** view. The shortcut can be deleted next time you start **Go to**.

IM—Instant messaging (chat)

Press , and select **My own** > **IM**.

Instant messaging allows you to converse with other people using instant messages and join discussion forums (IM groups) with specific topics. Various service providers maintain IM servers that you can log in to once you have registered to an IM service.

Options in the **IM** main view are **Open**, **Login**/ **Logout**, **Settings**, **Help**, and **Exit**.

Select **Conversations** to start or continue a conversation with an IM user; **IM contacts** to create, edit, or view the online status of your IM contacts; **IM groups** to start or continue a group conversation with multiple IM users; or **Recorded chats** to view a previous instant messaging session that you have saved.

Note: Check the availability of chat services, pricing, and tariffs with your network operator and/or service provider. Service providers will also give you instructions on how to use their services.

Receive IM settings

You must save the settings to access the service that you want to use. You may receive the settings in a special text message from the network operator or service provider that offers the IM service. See "Data and settings," p. 61. You can also enter the settings manually. See "Chat server settings," p. 91.

Connect to an IM server

Tip: To log in automatically when you start **IM**, select **Options** > **Settings** > **Server settings** > **IM login type** > **On app. start-up**.

1 Open **IM** to have your phone connect to the IM server in use. To change the IM server in use and save new IM servers, see "Chat server settings," p. 91.

2 Enter your user ID and password, and press ◉ to log in. You obtain the user ID and password for the IM server from your service provider.

You can select **Cancel** to stay offline; to log in to the IM server later, select **Options** > **Login**. You cannot send or receive messages while you are offline.

3 To log out, select **Options** > **Logout**.

Modify your IM settings

Select **Options** > **Settings** > **IM settings**:

Use screen name (shown only if IM groups are supported by the server)—To enter a nickname, select **Yes**.

IM presence—To allow others to see if you are online, select **Active for all**.

Allow messages from—To allow messages from all, select **All**.

Allow invitations from—To allow invitations only from your IM contacts, select **IM contacts only**. IM invitations are sent by IM contacts who want you to join their groups.

Msg. scrolling speed—To select the speed at which new messages are displayed.

Sort IM contacts—To sort your IM contacts **Alphabetically** or **By online status**.

Availability reloading—To choose how to update information about whether your IM contacts are online or offline, select **Automatic** or **Manual**.

Search for IM groups and users

To search for groups, in the **IM groups** view, select **Options** > **Search**. You can search by **Group name**, **Topic**, and **Members** (user ID).

To search for users, in the **IM contacts** view, select **Options** > **New IM contact** > **Search from server**. You can search by **User's name**, **User ID**, **Phone number**, and **E-mail address**.

Join and leave an IM group

To join an IM group that you have saved, scroll to the group, and press ⦿.

To join an IM group not on the list, but for which you know the group ID, select **Options** > **Join new group**. Enter the group ID, and press ⦿.

To leave the IM group, select **Options** > **Leave IM group**.

Chat

Once you have joined an IM group, you can view the messages that are exchanged there, and send your own messages.

Options while chatting are **Send**, **Send private msg.**, **Reply**, **Forward**, **Insert smiley**, **Send invitation**, **Leave IM group**, **Group**, **Record chat**/**Stop recording**, **Help**, and **Exit**.

To send a message, write the message in the message editor field, and press ⦿.

To send a private message to a participant, select **Options** > **Send private msg.**, select the recipient, write the message, and press ⦿.

To reply to a private message sent to you, select the message, and select **Options** > **Reply**.

To invite IM contacts who are online to join the IM group, select **Options** > **Send invitation**, select the contacts you want to invite, write the invitation message, and press ⦿.

To prevent receiving messages from certain participants, select **Options** > **Blocking options**, and select from the following:

Add to blocked list—To block messages from the currently selected participant.

Add ID to list manually—To enter the user ID of the participant. Enter the ID, and press ⦿.

View blocked list—To see the participants whose messages are being blocked.

Unblock—To select the user that you want to remove from the blocked list. Press ⦿.

Record chats

Options in the recorded chats view are **Open**, **Delete**, **Send**, **Mark/Unmark**, **Login**/**Logout**, **Settings**, **Help**, and **Exit**.

To record to a file the messages that are exchanged during a conversation or while you are joined in a IM group, select **Options** > **Record chat**, enter a name for the conversation file, and press ⦿. To stop recording, select **Options** > **Stop recording**.

The recorded conversation files are automatically saved in **Recorded chats**.

To view the recorded chats, in the main view, select **Recorded chats**, select the conversation, and press ◉.

View and start conversations

Go to the **Conversations** view to see a list of the individual conversation participants that you have an ongoing conversation with.

To view a conversation, scroll to a participant, and press ◉.

Options when viewing a conversation are **Send**, **Add to IM contacts**, **Insert smiley**, **Forward**, **Record chat**/**Stop recording**, **Blocking options**, **End conversation**, **Help**, and **Exit**.

To continue the conversation, write your message, and press ◉.

To return to the conversations list without closing the conversation, select **Back**.

To close the conversation, select **Options** > **End conversation**. Ongoing conversations are automatically closed when you exit **IM**.

To start a new conversation, select **Options** > **New conversation**:

Select recipient—To see a list of your chat contacts that are currently online. Scroll to the contact that you want to start a conversation with, and press ◉.

Glossary: The user ID is provided by the service provider to those who register to this service.

Enter user ID—To enter the user ID of the user you want to start a conversation with, and press ◉.

To save a conversation participant to your IM contacts, scroll to the participant, and select **Options** > **Add to IM contacts**.

To send automatic replies to incoming messages, select **Options** > **Set auto reply on**. Enter the text, and select **Done**. You can still receive messages.

IM contacts

Go to the **IM contacts** to retrieve chat contact lists from the server, or to add a new chat contact to a contact list. When you log in to the server, the previously used chat contact list is retrieved from the server automatically.

Options in the **IM contacts** view are **Open conversation**, **Contact details**, **Change contact list**, **Reload users availability**, **Belongs to groups**, **New IM contact**, **Move to other list**, **Edit**, **Delete**, **Switch tracking on**, **Blocking options**, **Login**/**Logout**, **Settings**, **Help**, and **Exit**.

To create a new contact, select **Options** > **New IM contact** > **Enter manually**. Fill in the **Nickname** and **User ID** fields, and select **Done**.

To move a contact from a list on the server to the retrieved list, select **Options** > **New IM contact** > **Move from other list**.

To change the chat contact list, select **Options** > **Change contact list**.

Select from the following options:

Open conversation—To start a new conversation or continue an ongoing conversation with the contact.

Switch tracking on—To have the phone notify you every time the chat contact goes online or offline.

Belongs to groups—To see which groups the chat contact has joined.

Reload users availability—To update information about whether the contact is online or offline. The online status is shown by an indicator next to the contact name. This option is not available if you have set the **Availability reloading** to **Automatic** in **IM settings**.

Manage IM groups

Options in the **IM groups** view are **Open**, **Join new group**, **Create new group**, **Leave IM group**, **Group**, **Search**, **Login**/ **Logout**, **Settings**, **Help**, and **Exit**.

Go to the **IM groups** view to see a list of the IM groups that you have either saved or are currently joined to.

Scroll to a group, select **Options** > **Group** and one of the following:

Save—To save an unsaved group that you are currently joined to.

Delete—To delete a saved or created group that you are currently not joined to.

View participants—To see who are currently joined to the group.

Details—To see the group ID, topic, participants, administrators of the group (shown only if you have the editing rights), the list of blocked participants (shown only if you have the editing rights), and whether private conversations are allowed in the group.

Settings—To view and edit the chat group settings. See "Create a new IM group," p. 90.

Administrate an IM group

Create a new IM group

Select **IM groups** > **Options** > **Create new group**. Enter the settings for the group.

You can edit the settings for an IM group if you have administrator rights to the group. The user who creates a group is automatically given administrator rights to it.

Group name, **Group topic**, and **Welcome note**—To add details that the participants see when they join the group.

Group size—To define the maximum number of members allowed to join the group.

Allow search—To define if others can find the chat group by searching.

Editing rights—To define the chat group participants to whom you want to give rights to invite contacts to join the IM group and edit the group settings.

Group members—See "Add and remove group members," p. 91.

Banned list—Enter the participants that are not allowed to join the IM group.

Allow private msgs.—To allow messaging between selected participants only.

Group ID—The group ID is created automatically and cannot be changed.

Add and remove group members

To add members to a group, select **IM groups**, scroll to an IM group, and select **Options** > **Group** > **Settings** > **Group members** > **Selected only** or **All**.

To remove a member from the IM group, scroll to the member, and select **Options** > **Remove**. To remove all members, select **Options** > **Remove all**.

Chat server settings

Select **Options** > **Settings** > **Server settings**. You may receive the settings in a special text message from the network operator or service provider that offers the chat service. You obtain the user ID and password from your service provider when you register to the service. If you do not know your user ID or password, contact your service provider.

To change the IM server to which you wish to connect, select **Default server**.

To add a new server to your list of IM servers, select **Servers** > **Options** > **New server**. Enter the following settings:

Server name—Enter the name for the chat server.

Access point in use—Select the access point you want to use for the server.

Web address—Enter the URL address of the IM server.

User ID—Enter your user ID.

Password—Enter your login password.

Tools

Settings

To change settings, press , and select **Tools** > **Settings**. Scroll to a setting group, and press ⦿ to open it. Scroll to a setting you want to change, and press ⦿.

Phone settings

General

Phone language—Changing the language of the display texts in your phone also affects the format used for date and time and the separators used, for example, in calculations. **Automatic** selects the language according to the information on your SIM card. After you change the display text language, the phone restarts.

Changing the settings for **Phone language** or **Writing language** affects every application in your phone, and the change remains effective until you change these settings again.

Writing language—Changing the language affects the characters and special characters available when writing text and the predictive text dictionary used.

Predictive text—You can set the predictive text input **On** or **Off** for all editors in the phone. The predictive text dictionary is not available for all languages.

Welcome note or logo—The welcome note or logo is displayed briefly each time you switch on the phone. Select **Default** to use the default image, **Text** to write a welcome note, or **Image** to select a photo or picture from **Gallery**.

Orig. phone settings—You can reset some of the settings to their original values. To do this, you need the lock code. See "Security," p. 96, "Phone and SIM," p. 96. After resetting, the phone may take a longer time to power on. Documents and files are unaffected.

Standby mode

Active standby—Use shortcuts to applications in the standby mode on the main display. See "Active standby mode," p. 29.

Left selection key—To assign a shortcut to the left selection key (⌐) in the standby mode, select an application from the list.

Right selection key—To assign a shortcut to the right selection key (¬) in the standby mode, select an application from the list.

Active standby apps.—To select the application shortcuts you want to appear in the active standby. This setting is only available if **Active standby** is on.

You can also assign keypad shortcuts for the different presses of the scroll key, by selecting an application from the list. The scroll key shortcuts are not available if the active standby is on.

Operator logo—This setting is visible only if you have received and saved an operator logo. You can choose if you want the operator logo to show or not.

Display

Brightness—You can adjust the basic brightness level of the main display to lighter or darker. However, in extreme light conditions, the brightness of the display is automatically adjusted.

Power saver time-out—The power saver on the main display is activated when the timeout period is over.

Light time-out—Select a time-out after which the backlight of the main display is switched off.

Call settings

Send my caller ID (Ŧ)—You can set your phone number to be displayed to (**Yes**) or hidden from (**No**) the person to whom you are calling, or the value may be set by your network operator or service provider when you make a subscription (**Set by network**).

Call waiting (Ŧ)—If you have activated call waiting, the network notifies you of a new incoming call while you have a call in progress. Select **Activate** to request the network to activate call waiting, **Cancel** to request the network to deactivate call waiting, or **Check status** to check if the function is active or not.

Reject call with SMS—Select **Yes** to send a text message to a caller informing why you could not answer the call. See "Answer or decline a call," p. 22.

Message text—Write a text to be sent in a text message when you reject a call.

Image in video call—You can deny video sending when you receive a video call. Select a still image to be displayed instead of video.

Automatic redial—Select **On**, and your phone makes a maximum of ten attempts to connect the call after an unsuccessful call attempt. To stop automatic redialling, press .

Summary after call—Activate this setting if you want the phone to briefly display the approximate duration of the last call.

1-touch dialing—Select **On**, and the numbers assigned to the speed dialling keys (**2** - **9**) can be dialled by pressing and holding the key. See also "Speed dial a phone number," p. 17.

Anykey answer—Select **On**, and you can answer an incoming call by briefly pressing any keypad key, except , , , and .

Line in use ()—This setting is shown only if the SIM card supports two subscriber numbers, that is, two phone lines. Select which phone line you want to use for making calls and sending text messages. Calls on both lines can be answered irrespective of the selected line. If you select **Line 2** and have not subscribed to this network service, you will not be able to make calls. When line 2 is selected, **2** is shown in the standby mode.

Tip! To switch between the phone lines, press and hold # in the standby mode.

Line change ()—To prevent line selection, select **Line change** > **Disable** if supported by your SIM card. To change this setting, you need the PIN2 code.

Connection settings

Data connections and access points

Your phone supports packet data connections (), such as GPRS in the GSM network.

Glossary: General packet radio service (GPRS) uses packet data technology where information is sent in short packets of data over the mobile network.

To establish a data connection, an access point is required. You can define different kinds of access points, such as:

- MMS access point to send and receive multimedia messages
- Access point for the Web application to view WML or XHTML pages
- Internet access point (IAP) to send and receive e-mail

Check the type of access point you need with your service provider for the service you wish to access. For availability and subscription to packet data connection services, contact your network operator or service provider.

Packet data connections in GSM and UMTS networks

When you use your phone in GSM and UMTS networks, multiple data connections can be active at the same time and access points can share a data connection. In the UMTS network, data connections remain active during voice calls. To check the active data connections, see "Connection manager," p. 81.

The following indicators may be displayed below the signal indicator, depending on which network you use:

GSM network, packet data is available in the network.

GSM network, packet data connection is active, data is being transferred.

- GSM network, multiple packet data connections are active.
- GSM network, packet data connection is on hold. (This can happen during a voice call, for example.)
- UMTS network, packet data is available in the network.
- UMTS network, packet data connection is active, data is being transferred.
- UMTS network, multiple packet data connections are active.
- UMTS network, packet data connection is on hold.

Receive access point settings

You may receive access point settings in a text message from a service provider, or you may have preset access point settings in your phone. See "Data and settings," p. 61.

To create a new access point, press , and select **Tools** > **Settings** > **Connection** > **Access points**.

An access point may be protected ( ) by your network operator or service provider. Protected access points cannot be edited or deleted.

Access points

Tip! See also "Receive MMS and e-mail settings," p. 60, "E-mail," p. 67, and "Access the Web," p. 70.

Follow the instructions given to you by your service provider.

Connection name—Give a descriptive name for the connection.

Data bearer—Depending on what data connection you select, only certain setting fields are available. Fill in all fields marked with **Must be defined** or with a red asterisk. Other fields can be left empty, unless you have been instructed otherwise by your service provider.

To be able to use a data connection, the network service provider must support this feature, and if necessary, activate it for your SIM card.

Access point name (for packet data only)—The access point name is needed to establish a connection to the packet data and UMTS networks. You obtain the access point name from your network operator or service provider.

User name—The user name may be needed to make a data connection, and is usually provided by the service provider. The user name is often case-sensitive.

Prompt password—If you must enter a new password every time you log in to a server, or if you do not want to save your password in the phone, select **Yes**.

Password—A password may be needed to make a data connection, and is usually provided by the service provider. The password is often case-sensitive.

Authentication—Select **Normal** or **Secure**.

Homepage—Depending on what you are setting up, write the Web address or the address of the multimedia messaging centre.

Select **Options** > **Advanced settings** to change the following settings:

Network type—Select the Internet protocol type to use: **IPv4 settings** or **IPv6 settings**. The other settings depend on the selected network type.

Phone IP address (for IPv4)—Enter the IP address of your phone.

Name servers—In **Primary name server:**, enter the IP address of the primary DNS server. In **Second. name server:**, enter the IP address of the secondary DNS server. Contact your Internet service provider to obtain these addresses.

Glossary: The domain name service (DNS) is an Internet service that translates domain names such as www.nokia.com into IP addresses like 192.100.124.195.

Proxy serv. address—Define the address for the proxy server.

Proxy port number—Enter the proxy port number.

Packet data

The packet data settings affect all access points using a packet data connection.

Packet data conn.—If you select **When available** and you are in a network that supports packet data, the phone registers to the packet data network. Also, starting an active packet data connection is quicker (for example, to send and receive e-mail). If you select **When needed**, the phone uses a packet data connection only if you start an application or action that needs it. If there is no packet data coverage and you select **When available**, the phone periodically tries to establish a packet data connection.

Access point—The access point name is needed to use your phone as a packet data modem to your computer.

Configurations

You may receive trusted server settings from your network operator or service provider in a configuration message, or the settings may be stored on your SIM or USIM card. You can save these settings to your phone, view or delete them in **Configurations**.

Date and time

See "Clock settings," p. 10.

See also the language settings in "General," p. 92.

Security

Phone and SIM

PIN code request—When active, the code is requested each time the phone is switched on. Deactivating the personal identification number (PIN) code request may not

be allowed by some SIM cards. See "Glossary of PIN and lock codes," p. 97.

PIN code, **PIN2 code**, and **Lock code**—You can change the lock code, PIN code, and PIN2 code. These codes can only include the numbers from **0** to **9**. See "Glossary of PIN and lock codes," p. 97.

Avoid using access codes similar to the emergency numbers to prevent accidental dialling of the emergency number.

If you forget any of these codes, contact your service provider.

Autolock period—You can set an autolock period, a time-out after which the phone automatically locks and can be used only if the correct lock code is entered. Enter a number for the time-out in minutes, or select **None** to turn off the autolock period.

To unlock the phone, enter the lock code.

When the device is locked, calls may be possible to the official emergency number programmed into your device.

Tip! To lock the phone manually, press . A list of commands opens. Select **Lock phone**.

Lock if SIM changed—You can set the phone to ask for the lock code when an unknown SIM card is inserted into your phone. The phone maintains a list of SIM cards that are recognized as the owner's cards.

Closed user group ( )—You can specify a group of people to whom you can call and who can call you.

When calls are limited to closed user groups, calls still may be possible to the official emergency number programmed into your device.

Confirm SIM services ( )—You can set the phone to display confirmation messages when you are using a SIM card service.

Glossary of PIN and lock codes

If you forget any of these codes, contact your service provider.

Personal identification number (PIN) code—This code protects your SIM card against unauthorized use. The PIN code (4 to 8 digits) is usually supplied with the SIM card. After three consecutive incorrect PIN code entries, the PIN code is blocked, and you need to unblock it before you can use the SIM card again. See the information about the PUK code in this section.

UPIN code—This code may be supplied with the USIM card. The USIM card is an enhanced version of the SIM card and is supported by UMTS mobile phones. The UPIN code protects the USIM card against unauthorized use.

PIN2 code—This code (4 to 8 digits) is supplied with some SIM cards, and is required to access some functions in your phone.

Lock code (also known as security code)—This code (5 digits) can be used to lock the phone to avoid unauthorized use.

The factory setting for the lock code is **12345**. To avoid unauthorized use of your phone, change the lock code. Keep the new code secret and in a safe place separate from your phone.

Personal unblocking key (PUK) code and PUK2 code—These codes (8 digits) are required to change a blocked PIN code or PIN2 code, respectively. If the codes are not supplied with the SIM card, contact the operator whose SIM card is in your phone.

UPUK code—This code (8 digits) is required to change a blocked UPIN code. If the code is not supplied with the USIM card, contact the operator whose USIM card is in your phone.

Certificate management

Digital certificates do not guarantee safety; they are used to verify the origin of software.

Glossary: Digital certificates are used to verify the origin of the XHTML or WML pages and installed software. However, they can only be trusted if the origin of the certificate is known to be authentic.

In the certificate management main view, you can see a list of authority certificates that are stored in your phone. Press ◔ to see a list of personal certificates, if available.

Options in the certificate management main view are **Certificate details**, **Delete**, **Trust settings**, **Mark/Unmark**, **Help**, and **Exit**.

Digital certificates should be used if you want to connect to an online bank or another site or remote server for actions that involve transferring confidential information. They should also be used if you want to reduce the risk of viruses or other malicious software and be sure of the authenticity of software when downloading and installing software.

Important: Even if the use of certificates makes the risks involved in remote connections and software installation considerably smaller, they must be used correctly in order to benefit from increased security. The existence of a certificate does not offer any protection by itself; the certificate manager must contain correct, authentic, or trusted certificates for increased security to be available. Certificates have a restricted lifetime. If **Expired certificate** or **Certificate not valid yet** is shown even if the certificate should be valid, check that the current date and time in your device are correct.

View certificate details—check authenticity

You can only be sure of the correct identity of a server when the signature and the period of validity of a server certificate have been checked.

You are notified on the phone display if the identity of the server is not authentic or if you do not have the correct security certificate in your phone.

To check certificate details, scroll to a certificate, and select **Options** > **Certificate details**. When you open certificate details, the validity of the certificate is checked, and one of the following notes may be displayed:

- **Certificate not trusted**—You have not set any application to use the certificate. See "Change the trust settings," p. 99.
- **Expired certificate**—The period of validity has ended for the selected certificate.
- **Certificate not valid yet**—The period of validity has not yet begun for the selected certificate.
- **Certificate corrupted**—The certificate cannot be used. Contact the certificate issuer.

Change the trust settings

Before changing any certificate settings, you must make sure that you really trust the owner of the certificate and that the certificate really belongs to the listed owner.

Scroll to an authority certificate, and select **Options** > **Trust settings**. Depending on the certificate, a list of the applications that can use the selected certificate is shown. For example:

- **Symbian installation**: **Yes**—The certificate is able to certify the origin of a new Symbian operating system application.
- **Internet**: **Yes**—The certificate is able to certify servers.
- **App. installation**: **Yes**—The certificate is able to certify the origin of a new Java application.

Select **Options** > **Edit trust setting** to change the value.

Call forwarding

Call forwarding allows you to forward your incoming calls to your voice mailbox or another phone number. For details, contact your service provider.

1 Press , and select **Tools** > **Settings** > **Call forwarding**.

2 Select which calls you want to forward: **Voice calls**, **Data and video calls**, or **Fax calls**.

3 Select the desired forward option. To forward voice calls when your number is busy or when you reject incoming calls, select **If busy**.

4 Set the forward option on (**Activate**) or off (**Cancel**), or check whether the option is activated (**Check status**). Several forward options can be active at the same time.

When all calls are forwarded, is shown in the standby mode.

Call barring and call forwarding cannot be active at the same time.

Call restriction

Call restriction allows you to restrict the calls that you make or receive with the phone. To change the settings, you need the barring password from your service provider. Select the desired barring option, and set it on (**Activate**) or off (**Cancel**), or check whether the option is active (**Check status**). **Call restriction** affects all calls, including data calls.

Call barring and call forwarding cannot be active at the same time.

When calls are barred, calls still may be possible to certain official emergency numbers.

Network

Your phone can automatically switch between the GSM and UMTS networks. The GSM network is indicated with in the standby mode. The UMTS network is indicated with 3G.

Network mode (shown only if supported by the operator)—Select which network to use. If you select **Dual mode**, the phone uses the GSM or UMTS network automatically, according to the network parameters and the roaming agreements between the network operators. Contact your network operator for more details.

Operator selection—Select **Automatic** to set the phone to search for and select one of the available networks, or **Manual** to manually select the network from a list of networks. If the connection to the manually selected network is lost, the phone sounds an error tone and asks you to reselect a network. The selected network must have a roaming agreement with your home network, that is, the operator whose SIM card is in your phone.

Glossary: A roaming agreement is an agreement between two or more network service providers to enable the users of one service provider to use the services of other service providers.

Cell info display—Select **On** to set the phone to indicate when it is used in a cellular network based on microcellular network (MCN) technology and to activate cell info reception.

Enhancement settings

Indicators shown in the standby mode:

- A headset is connected.
- A loopset is connected.
- The headset is unavailable, or a Bluetooth connection to a headset is lost.

Select **Headset**, **Loopset**, or **Bluetooth handsfree**, and the following options are available:

Default profile—To set the profile that you want activated each time you connect a certain enhancement to your phone. See "Profiles—Set tones," p. 27.

Automatic answer—To set the phone to answer an incoming call automatically after 5 seconds. If the Ringing type is set to **Beep once** or **Silent**, automatic answer is disabled.

Cover display settings

Brightness—To change the brightness of the cover display, close the fold, and adjust the brightness on the cover display with the joystick.

Wallpaper—Select the background image and how time is displayed on the cover display in the standby mode.

Power saver—Select the cover display power saver type, its time-out period, and if an image or an animation screen saver is shown after the time-out period before the power saver is activated.

Voice commands

You can use voice commands to control your phone. For more information about the enhanced voice commands supported by your phone, see "Voice dialing," p. 17.

To activate enhanced voice commands for starting applications or profiles, you must open the **Voice com.** application and its **Profiles** folder. Press , and select **Tools** > **Voice com.** > **Profiles**; the phone creates voice tags for the applications and profiles. You can now use enhanced voice commands by pressing and holding the capture key and saying a voice command. The voice command is the name of the application or profile displayed in the list.

To add more applications to the list, select **Options** > **New application**. To add a second voice command that can be used to start the application, scroll to it, select **Options** > **Change command**, and enter the new voice command as text. Avoid very short names, abbreviations, and acronyms.

To change voice command settings, select **Options** > **Settings**. To switch off the synthesizer that plays recognized voice tags and commands in the selected phone language, select **Synthesizer** > **Off**. To reset voice recognition learning, for example, when the main user of the phone has changed, select **Remove my adapts.**

Application manager

Press , and select **Tools** > **Manager**. You can install two types of applications and software to your phone:

- J2ME™ applications based on Java™ technology with the extension .jad or .jar ( ).

- Other applications and software suitable for the Symbian operating system ( ). The installation files have the .sis extension. Only install software specifically designed for your Nokia N90. Software providers will often refer to the official model number of this product: the Nokia N90-1.

Installation files may be transferred to your phone from a compatible computer, downloaded during browsing, or sent to you in a multimedia message, as an e-mail attachment, or using a Bluetooth connection. You can use Nokia Application Installer in Nokia PC Suite to install an application to your phone or a memory card. If you use Microsoft Windows Explorer to transfer a file, save the file to a memory card (local disk).

Example: If you have received the installation file as an e-mail attachment, go to your mailbox, open the e-mail, open the attachments view, scroll to the installation file, and press ⦿ to start installation.

Install applications and software

Tip! You can also use Nokia Application Installer available in Nokia PC Suite to install applications. See the CD-ROM if supplied with the phone.

Application icons are as follows: .sis application; Java application; application is not fully installed; application is installed on the memory card.

Important: Only install and use applications and other software from sources that offer adequate security and protection against harmful software.

Before installation, note the following:

- To view the application type, version number, and the supplier or manufacturer of the application, select **Options** > **View details**.
- To display the security certificate details of the application, select **Options** > **View certificate**. See "Certificate management," p. 98.
- If you install a file that contains an update or repair to an existing application, you can only restore the original application if you have the original installation file or a full back-up copy of the removed software package. To restore the original application, remove the application, and install the application again from the original installation file or the back-up copy.
- The .jar file is required for installing Java applications. If it is missing, the phone may ask you to download it. If there is no access point defined for the application, you are asked to select one. When you are downloading the .jar file, you may need to enter a user name and password to access the server. You obtain these from the supplier or manufacturer of the application.

1 Open **Manager**, and scroll to an installation file. Alternatively, search the phone memory or the memory card in **File mgr.**, or open a message in **Messaging** > **Inbox** that contains an installation file.

Select the application, and press ◉ to start the installation.

Tip! While browsing, you can download an installation file and install it without closing the connection.

2 Select **Options** > **Install**.

During installation, the phone shows information about the progress of the installation. If you are installing an application without a digital signature or certification, the phone displays a warning. Continue installation only if you are sure of the origin and contents of the application.

To start an installed application, locate it in the menu, and press ◉.

To start a network connection and to view extra information about the application, scroll to it, and select **Options** > **Go to web address**, if available.

To see what software packages have been installed or removed and when, select **Options** > **View log**.

To send your installation log to a help desk so that they can see what has been installed or removed, select **Options** > **Send log** > **Via text message** or **Via e-mail** (available only if the correct e-mail settings are in place).

Remove applications and software

Scroll to a software package, and select **Options** > **Remove**. Select **Yes** to confirm.

If you remove software, you can only reinstall it if you have the original software package or a full backup of the removed software package. If you remove a software package, you may no longer be able to open documents created with that software.

Note: If another software package depends on the software package that you removed, the other software package may stop working. Refer to the documentation of the installed software package for details.

Application settings

Select **Options** > **Settings** and from the following:

Software installation—Select if Symbian software can be installed: **On**, **Signed only**, or **Off**.

Online certif. check—Select to check the online certificates before installing an application.

Default web address—Set the default address used when checking online certificates.

Some Java applications may require a phone call, a message to be sent, or a network connection to a specific access point for downloading extra data or components. In the **Manager** main view, scroll to an application, and select **Options** > **Suite settings** to change settings related to that specific application.

Activation keys—handle copyright-protected files

Copyright protections may prevent some images, music (including ringing tones), and other content from being copied, modified, transferred or forwarded.

Press , and select **Tools** > **Activ. keys** to view the digital rights activation keys stored in your phone:

- Valid keys ( ) are connected to one or more media files.
- With expired keys ( ), you have no time to use the media file, or the time period for using the file is exceeded. To view the **Expired** activation keys, press .

To buy more usage time or extend the usage period for a media file, select an activation key, and **Options** > **Activate content**. Activation keys cannot be updated if Web service message reception is disabled. See "Web service messages," p. 69.

To view which keys are not in use at the moment (**Not used**), press twice. Unused activation keys have no media files connected to them saved in the phone.

To view detailed information such as the validity status and ability to send the file, select an activation key, and press .

Troubleshooting

Q&A

Bluetooth connectivity

Q: Why can't I find my friend's device?

A: Check that both devices have activated Bluetooth connectivity.

Check that the distance between the two devices is not over 10 metres and that there are no walls or other obstructions between the devices.

Check that the other device is not in hidden mode.

Check that both devices are compatible.

Q: Why can't I end a Bluetooth connection?

A: If another device is connected to your phone, you can either end the connection using the other device or by deactivating Bluetooth connectivity. Press , and select **Connect.** > **Bluetooth** > **Off**.

Multimedia messaging

Q: What should I do when the phone cannot receive a multimedia message because memory is full?

A: The amount of memory needed is indicated in the error message: **Not enough memory to retrieve message. Delete some data first.** To view what kind of data you have and how much memory the different data groups consume, press , and select **Tools** > **File manager** > **Options** > **Memory details**.

Q: The note **Retrieving message** is shown briefly. What is happening?

A: The phone is trying to retrieve a multimedia message from the multimedia messaging centre.

Check that the settings for multimedia messaging are defined correctly and that there are no mistakes in phone numbers or addresses. Press , and select **Messaging** > **Options** > **Settings** > **Multimedia message**.

Q: How can I end the data connection when the phone starts a data connection again and again?

A: To stop the phone from making a data connection, select : **Messaging** > **Options** > **Settings** > **Multimedia message** > **Multimedia retrieval**—To control the retrieval of multimedia messages manually, select **Manual**. When you receive a multimedia message, the phone asks whether you want to retrieve it or not. To reject all incoming multimedia messages, select **Off**.

Messaging > **Options** > **Settings** > **E-mail settings** > **Mailboxes** > **Automatic retrieval** > **Header retrieval** > **Off**—To disable automatic header retrieval. You can still retrieve headers to your phone manually.

Messaging

Q: Why can't I select a contact?

A: The contact card may not have a phone number or an e-mail address. Add the missing information to the contact card in **Contacts**.

Entries that are saved only on the SIM card are not shown in the contacts directory. To copy contacts from the SIM card to **Contacts**, see "Copy contacts," p. 31.

Camera

Q: Why do images look smudgy?

A: Ensure that the camera lens protection window is clean.

Q: Why is the camera application not in the main menu?

A: In the standby mode, the camera application is started when you activate the Imaging mode or the Camera mode. See "Modes," p. 6.

Calendar

Q: Why are the week numbers missing?

A: If you have changed the calendar settings so that the week starts on a day other than Monday, the week numbers are not shown.

Browser services

Q: What do I do if the following message is displayed: **No valid access point defined. Define one in Web settings.**?

A: Insert the correct browser settings. Contact your service provider for instructions.

Log

Q: Why does the log appear empty?

A: You may have activated a filter, and no communication events fitting that filter have been logged. To see all events, press , and select **My own** > **Log**. Scroll right, and select **Options** > **Filter** > **All communication**.

Q: How do I delete my log information?

A: To clear the log, press , and select **My own** > **Log**. Scroll right, and select **Options** > **Clear log** or go to **Settings** > **Log duration** > **No log**. These will erase the log contents, recent calls register, and message delivery reports permanently.

PC connectivity

Q: Why do I have problems in connecting the phone to my PC?

A: Make sure that Nokia PC Suite is installed and running on your PC. See the User Guide for Nokia PC Suite on the CD-ROM. If Nokia PC Suite is installed and running, you can use Nokia Get connected wizard available in Nokia PC Suite to connect to your PC. For further information on how to use Nokia PC Suite, see the help function on Nokia PC Suite or visit the support pages at **www.nokia.com**.

Access codes

Q: What is my password for the lock, PIN, or PUK codes?

A: The default lock code is **12345**. If you forget or lose the lock code, contact your phone dealer.

If you forget or lose a PIN or PUK code, or if you have not received such a code, contact your network service provider.

For information about passwords, contact your access point provider, for example, a commercial Internet service provider (ISP), service provider, or network operator.

Application not responding

Q: How do I close an application that is not responding?

A: Open the application switching window by pressing and holding . Then scroll to the application, and press to close the application.

Display

Q: Why do missing, discolored, or bright dots appear on the screen every time I turn on my phone?

A: This is a characteristic of this type of display. Some displays may contain pixels or dots that remain on or off. This is normal, not a fault.

Memory low

Q: What can I do if my phone memory is low?

A: You can delete the following items regularly to avoid memory getting low:

- Messages from **Inbox**, **Drafts**, and **Sent** folders in **Messaging**
- Retrieved e-mail messages from the phone memory
- Saved browser pages
- Images and photos in **Gallery**

To delete contact information, calendar notes, call timers, call cost timers, game scores, or any other data, go to the respective application to remove the data. If you are deleting multiple items and any of the following notes are shown: **Not enough memory to perform operation. Delete some data first.** or **Memory low. Delete some data.**, try deleting items one by one (starting from the smallest item).

Q: How can I save my data before deleting it?

A: Save your data using one of the following methods:

- Use Nokia PC Suite to make a back up copy of all data to a compatible computer.
- Send images to your e-mail address, and then save the images to your computer.
- Send data using a Bluetooth connection to a compatible device.
- Store data on a compatible memory card.

Battery information

Charging and discharging

Your device is powered by a rechargeable battery. The full performance of a new battery is achieved only after two or three complete charge and discharge cycles. The battery can be charged and discharged hundreds of times but it will eventually wear out. When the talk and standby times are noticeably shorter than normal, replace the battery. Use only Nokia approved batteries, and recharge your battery only with Nokia approved chargers designated for this device.

Unplug the charger from the electrical plug and the device when not in use. Do not leave a fully charged battery connected to a charger, since overcharging may shorten its lifetime. If left unused, a fully charged battery will lose its charge over time.

If the battery is completely discharged, it may take a few minutes before the charging indicator appears on the display or before any calls can be made.

Use the battery only for its intended purpose. Never use any charger or battery that is damaged.

Do not short-circuit the battery. Accidental short-circuiting can occur when a metallic object such as a coin, clip, or pen causes direct connection of the positive (+) and negative (-) terminals of the battery. (These look like metal strips on the battery.) This might happen, for example, when you carry a spare battery in your pocket or purse. Short-circuiting the terminals may damage the battery or the connecting object.

Leaving the battery in hot or cold places, such as in a closed car in summer or winter conditions, will reduce the capacity and lifetime of the battery. Always try to keep the battery between 15°C and 25°C (59°F and 77°F). A device with a hot or cold battery may not work temporarily, even when the battery is fully charged. Battery performance is particularly limited in temperatures well below freezing.

Do not dispose of batteries in a fire as they may explode. Batteries may also explode if damaged. Dispose of batteries according to local regulations. Please recycle when possible. Do not dispose as household waste.

Nokia battery authentication guidelines

Always use original Nokia batteries for your safety. To check that you are getting an original Nokia battery, purchase it from an authorized Nokia dealer, look for the Nokia Original Enhancements logo on the packaging and inspect the hologram label using the following steps:

Successful completion of the four steps is not a total assurance of the authenticity of the battery. If you have any reason to believe that your battery is not an authentic original Nokia battery, you should refrain from using it, and take it to the nearest authorized Nokia service point or dealer for assistance.

Your authorized Nokia service point or dealer will inspect the battery for authenticity. If authenticity cannot be verified, return the battery to the place of purchase.

Authenticate hologram

1 When looking at the hologram on the label, you should see the Nokia connecting hands symbol from one angle and the Nokia Original Enhancements logo when looking from another angle.

2 When you angle the hologram left, right, down, and up, you should see 1, 2, 3, and 4 dots on each side respectively.

3 Scratch the side of the label to reveal a 20-digit code, for example 12345678919876543210. Turn the battery so that the numbers are facing upwards. The 20-digit code reads starting from the number at the top row followed by the bottom row.

4 Confirm that the 20-digit code is valid by following the instructions at **www.nokia.com/batterycheck**.

To create a text message, enter the 20-digit code, for example 12345678919876543210, and send to +44 7786 200276.

National and international operator chargers will apply.

You should receive a message indicating whether the code can be authenticated.

What if your battery is not authentic?

If you cannot confirm that your Nokia battery with the hologram on the label is an authentic Nokia battery, please do not use the battery. Take it to the nearest authorized Nokia service point or dealer for assistance. The use of a battery that is not approved by the manufacturer may be dangerous and may result in poor performance and damage to your device and its enhancements. It may also invalidate any approval or warranty applying to the device.

To find out more about original Nokia batteries, visit **www.nokia.com/battery**.

Care and maintenance

Your device is a product of superior design and craftsmanship and should be treated with care. The suggestions below will help you protect your warranty coverage.

- Keep the device dry. Precipitation, humidity, and all types of liquids or moisture can contain minerals that will corrode electronic circuits. If your device does get wet, remove the battery, and allow the device to dry completely before replacing it.
- Do not use or store the device in dusty, dirty areas. Its moving parts and electronic components can be damaged.
- Do not store the device in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.
- Do not store the device in cold areas. When the device returns to its normal temperature, moisture can form inside the device and damage electronic circuit boards.
- Do not attempt to open the device other than as instructed in this guide.
- Do not drop, knock, or shake the device. Rough handling can break internal circuit boards and fine mechanics.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the device.
- Do not paint the device. Paint can clog the moving parts and prevent proper operation.
- Use a soft, clean, dry cloth to clean any lenses, such as camera, proximity sensor, and light sensor lenses.
- Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could damage the device and may violate regulations governing radio devices.
- Use chargers indoors.
- Always create a backup of data you want to keep, such as contacts and calendar notes, before sending your device to a service facility.

All of the above suggestions apply equally to your device, battery, charger, or any enhancement. If any device is not working properly, take it to the nearest authorized service facility for service.

Additional safety information

Your device and its enhancements may contain small parts. Keep them out of the reach of small children.

Operating environment

Remember to follow any special regulations in force in any area, and always switch off your device when its use is prohibited or when it may cause interference or danger. Use the device only in its normal operating positions. This device meets RF exposure guidelines when used either in the normal use position against the ear or when positioned at least 1.5 centimeters (5/8 inches) away from the body. When a carry case, belt clip or holder is used for body-worn operation, it should not contain metal and should position the device the above-stated distance from your body.

To transmit data files or messages, this device requires a good quality connection to the network. In some cases, transmission of data files or messages may be delayed until such a connection is available. Ensure that the above separation distance instructions are followed until the transmission is completed.

Parts of the device are magnetic. Metallic materials may be attracted to the device, and persons with a hearing aid should not hold the device to the ear with the hearing aid. Do not place credit cards or other magnetic storage media near the device, because information stored on them may be erased.

Medical devices

Operation of any radio transmitting equipment, including wireless phones, may interfere with the functionality of inadequately protected medical devices. Consult a physician or the manufacturer of the medical device to determine if they are adequately shielded from external RF energy or if you have any questions. Switch off your device in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy.

Pacemakers. Pacemaker manufacturers recommend that a minimum separation of 15.3 centimeters (6 inches) be maintained between a wireless phone and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with the independent research by and recommendations of Wireless Technology Research. Persons with pacemakers should do the following:

- Always keep the device more than 15.3 centimeters (6 inches) from the pacemaker
- Not carry the device in a breast pocket
- Hold the device to the ear opposite the pacemaker to minimize the potential for interference.

If you suspect interference, switch off your device, and move the device away.

Hearing aids. Some digital wireless devices may interfere with some hearing aids. If interference occurs, consult your service provider.

Vehicles

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles such as electronic fuel injection systems, electronic antiskid (antilock) braking systems, electronic speed control systems, and air bag systems. For more information, check with the manufacturer, or its representative, of your vehicle or any equipment that has been added.

Only qualified personnel should service the device, or install the device in a vehicle. Faulty installation or service may be dangerous and may invalidate any warranty that may apply to the device. Check regularly that all wireless device equipment in your vehicle is mounted and operating properly. Do not store or carry flammable liquids, gases, or explosive materials in the same compartment as the device, its parts, or enhancements. For vehicles equipped with an air bag, remember that air bags inflate with great force. Do not place objects, including installed or portable wireless equipment in the area over the air bag or in the air bag deployment area. If in-vehicle wireless equipment is improperly installed, and the air bag inflates, serious injury could result.

Using your device while flying in aircraft is prohibited. Switch off your device before boarding an aircraft. The use of wireless teledevices in an aircraft may be dangerous to the operation of the aircraft, disrupt the wireless telephone network, and may be illegal.

Potentially explosive environments

Switch off your device when in any area with a potentially explosive atmosphere and obey all signs and instructions.

Potentially explosive atmospheres include areas where you would normally be advised to turn off your vehicle engine. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death. Switch off the device at refueling points such as near gas pumps at service stations. Observe restrictions on the use of radio equipment in fuel depots, storage, and distribution areas; chemical plants; or where blasting operations are in progress. Areas with a potentially explosive atmosphere are often, but not always, clearly marked. They include below deck on boats, chemical transfer or storage facilities, vehicles using liquefied petroleum gas (such as propane or butane), and areas where the air contains chemicals or particles such as grain, dust or metal powders.

Emergency calls

Important: Wireless phones, including this device, operate using radio signals, wireless networks, landline networks, and user-programmed functions. Because of this, connections in all conditions cannot be guaranteed. You should never rely solely on any wireless device for essential communications like medical emergencies.

To make an emergency call:

1 If the device is not on, switch it on. Check for adequate signal strength.

Some networks may require that a valid SIM card is properly inserted in the device.

2 Press the end key as many times as needed to clear the display and ready the device for calls.

3 Enter the official emergency number for your present location. Emergency numbers vary by location.

4 Press the the call key.

If certain features are in use, you may first need to turn those features off before you can make an emergency call. Consult this guide or your service provider for more information.

When making an emergency call, give all the necessary information as accurately as possible. Your wireless device may be the only means of communication at the scene of an accident. Do not end the call until given permission to do so.

Warning: In the offline profile you cannot make (or receive) any calls, except make calls to certain emergency numbers, or use other features that require network coverage.

Warning: You cannot make emergency calls in the Imaging mode, because the keypad is not active. To make an emergency call, activate the Fold open mode.

Certification information (SAR)

THE NOKIA N90 DEVICE MEETS INTERNATIONAL GUIDELINES FOR EXPOSURE TO RADIO WAVES

This mobile device meets guidelines for exposure to radio waves.

Your mobile device is a radio transmitter and receiver. It is designed not to exceed the limits for exposure to radio waves recommended by international guidelines. The guidelines were developed by the independent scientific organization ICNIRP and include safety margins designed to assure the safety of all persons, regardless of age and health.

The exposure standard for mobile devices employ a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit stated in the ICNIRP guidelines is 2.0 watts/kilogram (W/kg) averaged over 10 grams of tissue. Tests for SAR are conducted using standard operating positions with the device transmitting at its highest certified power level in all tested frequency bands. The actual SAR level of an operating device can be well below the maximum value because the device is designed to use only the power required to reach the network. That amount changes depending on a number of factors such as how close you are to a network base station. The highest SAR value under the ICNIRP guidelines for use of the device at the ear is 0.29 W/kg.

Use of device accessories and enhancements may result in different SAR values. SAR values may vary depending on national reporting and testing requirements and the network band. Additional SAR information may be provided under product information at **www.nokia.com**.

Your mobile device is also designed to meet the requirements for exposure to radio waves established by the Federal Communications Commission (USA) and Industry Canada. These requirements set a SAR limit of 1.6 W/kg averaged over 1 gram of tissue. The highest SAR value reported under this standard during product certification for use at the ear is 0.22 W/kg and when properly worn on the body is 0.54 W/kg. Information about this device model can be found at at **http://www.fcc.gov/oet/fccid** by searching the equipment authorization system using FCC ID: QURRM-42.

Technical Information

Feature	Specification
Weight	6.1 oz (173 g) with BL-5B Li-Ion Battery
Size	Size Volume: 7.69 in^3 (126 cm^3) Length: 4.42 in (112.31 mm) Width: 2.05 in (51.98 mm) Thickness: 0.96 in (24.45 mm)
Frequency range	GSM 900 880–915 MHz (TX) 925–960 MHz (RX) GSM 1800 1710–1785 MHz (TX) 1805–1880 MHz (RX) GSM 1900 1850–1910 MHz (TX) 1930–1990 MHz (RX) WCDMA 1920-1980 2110-2170
Transmitter output power	Up to 2 W
Battery voltage	3.7 V dc
Operating temperature	14°F to + 131°F (15°C to + 25°C)

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